Undergraduate Programmes 2015/2016

A/Prof LEE Wee Sun
Vice Dean, Undergraduate Programmes
Outline

• Degree Requirements
• Pre-allocation, CORS
• Academic Challenge and Academic Advice
• Useful Information
Degree Programmes

Undergraduate Programmes:
- Bachelor of Computing (Honours) in Computational Biology
- Bachelor of Computing (Honours) in Information Security
- Bachelor of Computing (Honours) in Computer Science
- Bachelor of Computing (Honours) in E-Commerce
- Bachelor of Computing (Honours) in Information Systems
- Bachelor of Engineering (Honours) in Computer Engineering
- Bachelor of Science (Honours) in Business Analytics
This course briefing is meant for students pursuing the Bachelor of Computing and BZA 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 School of Computing.

It will not cover detailed information about individual programmes.

Please attend the Programme Briefing this afternoon to find out more information.
Module

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS2105</td>
<td>INFORMATION SECURITY</td>
<td>CS2105</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Modular Credit</th>
<th>Workload</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2-1-0-3-3</td>
<td>With the widespread use of computers and Internet as well as electronic commerce, computer security becomes more and more important. The objective of this module is to give students basic knowledge of computer security. This module covers the following topics: threats to computer systems, network security fundamentals, security in a layered protocol architecture, authentication in computer systems, access control, intrusion detection, security architecture and frameworks, lower layers security protocols, upper layer security protocols, electronic mail and EDI security, directory systems security, Unix systems security, security evaluation criteria.</td>
</tr>
</tbody>
</table>

“Weight of a module

4MC ~ 10 hrs/wk
5MC ~ 12.5 hrs/wk

Must pass this module before taking CS3235.
Usually good idea to do level 1000 in Year 1, level 2000 in Year 2 for pre-req purposes
<table>
<thead>
<tr>
<th>Module Code</th>
<th>CS1231</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Title</td>
<td>DISCRETE STRUCTURES</td>
</tr>
<tr>
<td>Modular Credit</td>
<td>4</td>
</tr>
<tr>
<td>Workload</td>
<td>3-1-0-3-3</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>A-Level Mathematics</td>
</tr>
<tr>
<td>Preclusions</td>
<td>MA1100</td>
</tr>
</tbody>
</table>

**Description**

This module introduces mathematical tools required in the study of computer science. Topics include:

1. Logic and proof techniques: propositions, conditionals, quantifications.
3. Mathematical formulation of data models (linear model, trees, graphs).
4. Counting and Combinatorics: Pigeonhole Principle. Inclusion-Exclusion Principle. Number of relations on a set, number of injections from one finite set to another, Diagonalisation proof: An infinite countable set has an uncountable power set; Algorithmic proof: An infinite set has a countably infinite subset. Subsets of countable sets are countable.

*Must not have taken MA1100 before*
Modes of Module Taking

1. 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
Modes of Module Taking

1. Taking with Grade
2. Taking CS/CU modules
   - Pass/fail (completed satisfactorily/completed unsatisfactorily)
3. Taking the S/U Option
   - Grade free first semester
   - Encourage students to try modules outside their fields of study
S/U Option

- For grade free first semester and 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 performance
  - Three day window to decide on S/U after release of results
  - Irrevocable!!
S/U Option

• Limited to
  – level 1000 modules, and
  – level 2000 modules that do not have pre-requisites
    • Exception: You can S/U level 2000 modules with pre-requisites if you do them in your first semester because of advance placement of the pre-requisites (to facilitate grade free first semester)
  – CELC level 2000 modules including CELC-UTown modules
  – Center of Language Studies modules

• Cannot exercise this option on modules:
  – a. dropped with a “F” grade during the semester
  – b. in which a student has been found to plagiarize
Grade Free Option for First Semester

• Students allowed 12MCs of S/U to use throughout the degree
• To allow transition into university, students are allowed an additional 20MCs of S/U
• Total 32MCs, of which 20MCs will expire after the first semester (whether used or unused)
  – Workload capped at 23MCs (27MCs for DDP/CDP) for first semester
Some students are preallocated the quantitative reasoning (QR) module GER1000 in first semester, while others are preallocated in the second semester.

To ensure students have equal opportunity to S/U the QR module, 4MC of unused S/U from Sem 1 can be carried over and used for GER1000 in Sem 2 (but not beyond Sem 2).
# Grade, Grade Points and S/U Option

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point</th>
<th>S/U Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>5.00</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>A</td>
<td>5.00</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>A-</td>
<td>4.50</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>B+</td>
<td>4.00</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>B</td>
<td>3.50</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>B-</td>
<td>3.00</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C+</td>
<td>2.50</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D+</td>
<td>1.50</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>Unsatisfactory</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>CS1010</td>
<td>PROGRAMMING METHODOLOGY</td>
<td>B+</td>
<td>4</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>CS1231</td>
<td>DISCRETE STRUCTURES</td>
<td>B-</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>IS1103</td>
<td>COMPUTING AND SOCIETY</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 COMMUNICATIONS</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></td>
<td><strong>20</strong></td>
<td><strong>64</strong></td>
</tr>
</tbody>
</table>

**CAP = 64/20 = 3.2**  
**SAP (Semester Average Point) = 64/20 = 3.20**
Degree Structure

University Level Requirements (ULR)
Common for all programmes in NUS
(From 2015 onwards, GE curriculum)

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)
General Education

• Modules that lay the foundation for important life skills

• Five pillars
  – GEH – Human culture
  – GEQ – Asking questions
  – GER – Quantitative Reasoning
  – GES – Singapore Studies
  – GET – Thinking and Expression
• Do one GE module from each pillar (Asking Questions pillar is still being defined – if not ready, do another module from another pillar)

• For Thinking and Expression pillar, do either GET1006 Critical Thinking in the Information Age (default for SoC) or GET1021 Critical Thinking and Writing

• USP and UTown students replace GE with USP, UTown modules.
Programme/Major Requirements

Programme Essentials

- Core Modules/Computer Science Foundations/ ...
- Must pass all of them with letter grades (unless with permitted S/U option)
- Include at least two programming modules
  - CS1010/CS1101S Programming Methodology
  - CS1020 Data Structures and Algorithms I

Programme Electives

- Each programme has its own list of elective modules
- Allow you to choose modules from a basket
• ULR
• Programme Requirements
• Unrestricted Electives
  – Modules from SoC/other Faculties to make up total modular credit requirement
Degree Requirements - I

- Pass at least 160 MCs (approx. 40 modules) comprising:
  - University Level Requirements – pass 20 MCs
  - Programme Requirements
    - Fulfil Programme Essentials, Programme Electives
  - Unrestricted Electives
- CAP must be at least 2.00.
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
- These MCs must be earned from NUS modules with assigned grades, or modules with an ‘S’ or ‘CS’ grade.

Only up to 32 MCs may be accrued from modules on S/U basis (20 MCs of the 32 MCs will expire after first semester).
Poly 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
Other Requirements

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

- Maximum Candidature for Double-degree Programme:
  - 6 Years

- Number of MCs to read every semester:
  - at least 18 MCs (previously 15 MCs)

- Completed the programme in 8 semesters, but want to spend the 9th semester to pull up your CAP?
  - Possible
  - Must take at least 15 MCs
  - Must take only level-3000 or above modules
Adam is into his final semester and his total MC accumulated is 142. He intends to take 20MC of modules in this semester in order to get a CAP of 3.50.

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

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

\[
= 4.57
\]

Example:
4 of grade A- (4.5) and 1 of grade A (5.0)
2 B+ (4.0), and 3 A

1 B (3.5), 1 B+, and ... No Way!!

<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>

<table>
<thead>
<tr>
<th>Grade</th>
<th>CAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-</td>
<td>3</td>
</tr>
<tr>
<td>C+</td>
<td>2.5</td>
</tr>
<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>
To continue in a programme, a student must not have:

- CAP below 1.50 for two consecutive semesters; or
- CAP below 2.00 for three consecutive semesters

Student receiving academic warning or under 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>Value</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>
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<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>
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)

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

Example: 4 B- (3.0) and 1 B (3.5)
2 C+ (2.5), 1 B-, 1 B, 1 B+

\[
\begin{array}{|c|c|}
\hline
\text{Grade} & \text{Value} \\
\hline
\text{A+} & 5 \\
\text{A} & 5 \\
\text{A-} & 4.5 \\
\text{B+} & 4 \\
\text{B} & 3.5 \\
\text{B-} & 3 \\
\text{C+} & 2.5 \\
\text{C} & 2 \\
\text{D+} & 1.5 \\
\text{D} & 1 \\
\text{F} & 0 \\
\hline
\end{array}
\]
Can I drop a module after securing it?

<table>
<thead>
<tr>
<th>Add new modules</th>
<th>By end of week 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop modules without grade penalty</td>
<td>By end of week 2</td>
</tr>
<tr>
<td>Drop modules with “W” grade (need approval from mentor or an acad advisor if below min workload)</td>
<td>Week 3, Day 1 – 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>
What do Employers look for ...
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
• SoC/NUS offers
  o Internships for work experience
  o Entrepreneurship programme
  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
Internships

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.
Entrepreneurship

Courses on Digital Entrepreneurship

- CP2201 Journey of the Innovators
- IS3251 Principles of Technology Entrepreneurship

VaSCo (Validating Startup Concept)
Up to $10,000 to develop idea

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

Incubation center at SoC.
Open Source and Volunteer Work

Build systems for volunteer organizations and gain course credit

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

Google Summer of Code and Computing for Voluntary Welfare Organizations can be mapped to 3-month internship (SIP).
Outline

• Degree Requirements
• **Pre-allocation, CORS, Streaming**
• Academic Challenge and Academic Advice
• Useful Information
How to Get the modules you want?

- We get them for you
  - Module Pre-allocation
  - Module Preference Exercise (MPE)

- For modules that are not pre-allocated, you get them yourselves by BIDDING FOR THEM
  - Course Online Registration System (CORS)
    - Auction system
    - Each student given a budget
    - Student decide how much a course is worth to have, and bid for the course
    - Higher chance for higher bid
Module Pre-allocation for this Semester

- Pre-allocate some of the modules for you
  - There is no need to bid for these modules
  - Arrange your other modules around these
  - Pre-allocated modules appeared when you log in to CORS
    - Each student may be different depending on your background and space availability
Module Preference Exercise (MPE)

- Inform us your preferred modules to study in the coming semester
- Gain pre-allocation of modules before the official course registration begins
- Exercise begins before the start of the following semester
Preallocation this Semester

• Each of you will be preallocated a few modules – see the modules when log into CORS
• Bid for the rest in CORS
• GER1000 Quantitative Reasoning randomly preallocated to some students – flipped classroom, please register for tutorials.
  – For GER1000 problems, please appeal through CORS
  – Other queries on GER1000, contact scissm@nus.edu.sg with subject “Query on Quantitative Reasoning”.
CORS Lecture Bidding (In a Nutshell)

- Every semester, each student given bidding pts

Decide module  Use Pts to Bid  If Bid pts > Your Peers = Secure Module

Summary in this briefing: see http://www.nus.edu.sg/cors/using-cors.html for details before you start using CORS
• Pts deposited for bidding of modules (every sem) into 2 accounts
  
  – **Programme (P) account**
    - for *modules within your major or faculty* (please refer to your faculty for the specific rules)
    - E.g. SoC student, CS1010
  
  – **General (G) account**
    - for modules that fulfill *university level requirements & unrestricted electives*
    - E.g. GEH/GEQ/GER/GET/GES modules, USP, minor modules & etc
Bidding Queues

• Protection in bidding implemented through **bidding queues**

• Each module, there is a unique set of bidding queue:
  
  – \( P_r \) = **Returning** students can bid using \( P \) acct
  
  – \( P_n \) = **New** students can bid using \( P \) acct
  
  – \( G \) = **All** students can bid using \( G \) acct
Queue combined to **maximize** enrollment of modules

- **Bid at appropriate round**, as round passes your chance of getting the module **diminishes**

- **Queue combined to maximize enrollment of modules**

**Bidding Rounds**

- **Round 1A – 1B**: $P_r$

- **Round 1C**: $P_r$, $P_n$, $G$

- **Round 2A – 2B**: $P_r + G$, $P_n$, $G$

- **Round 3**: $P_r + P_n + G$

**NO Protection to New Students!**
Using Bidding Statistics to Help You Decide

• Published statistics at specific bidding stages
  – Lecture groups available for open stage bidding
  – Bidding statistics at end of open stage bidding
  – Bidding summary (end of round, per round)
  – Average bid pts info (end of round, accumulative)
  – Global bid activity history info (end of round, per round)

• www.cors.nus.edu.sg → Time-sensitive info → Latest Bidding Info
Tutorial Balloting (In a Nutshell)

- Your **module lecture class** must first be **registered**
- **NOT** first come first served
- **NO** bidding pts involved
- Allocation is completely **RANDOM**
Tutorial Balloting (In a Nutshell)

1. Decide classes you want (up to 20)
2. Rank the classes in order of importance (1=highest, 20=lowest)
3. If class quota can meet demand, all get allocated
4. If class quota cannot meet demand, ballot process happen
Outline

• Degree Requirements
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• Useful Information
Academic Challenge: Double and Concurrent Degrees

- CS/IS with Business Admin/Accountancy
- French Grandes Ecoles
- EC with Masters in Engineering and Tech Innovation Management in CMU
- CS with Maths/Applied Maths
- CS with Masters in CS in Brown
- CS with Masters in Interactive Media in CMU
- DDP with another NUS Faculty
- CS with Masters in Comp Bio in Brown
- CS/IS with Masters in Management with NUS Business School
Undergraduate Research

Opportunity Programme (UROP)

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

Chris Chua
Academic Challenge: University Scholars Programme

Breadth and Interdisciplinary Studies

Students in the Scholars Programme must read and pass:

- 3 compulsory foundation-tier modules worth 12 MCs
- 8 Inquiry-tier modules worth 32 MCs
- 1 reflection-tier module worth 4 MCs

Which includes 1 Singapore Studies module worth 4 MCs

**FOUNDATION-TIER**

Writing and Critical Thinking
Quantitative Reasoning Foundation
University Scholars Seminar

**INQUIRY-TIER**

Humanities and Social Sciences
Sciences & Technologies

**REFLECTION-TIER**

Senior Seminar
Academic Challenge: Double-Major Programmes, Minor Programmes

- Double-major Programmes
  - Double major in Management
  - Double major in Management of Technology
  - Double major from many faculties

- Minor Programmes offered by other faculties
  - Math, GIS, Gender studies, ...
Academic Advisors

• Questions you may have:
  – Should I do a DDP, USP, FDDP, CDP, SEP, specialization, 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!
Faculty Mentor

- 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?
- SoC has a voluntary mentorship scheme where both faculty members and students volunteer to be in the scheme
- We expect enthusiastic interaction as everyone in the scheme volunteered. 😊
- Watch out for announcement on how to participate in the matching process near the start of semester!
Career Advisor

- Desmond Teo
- COM1 01-23

Some questions you may have for Desmond
- 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?
Advice on Passing a Module

Perform consistently in Continual assessment (CA) and examination.

- **Assignments**
- **Tutorial Attendance**
- **Mid-term Tests/Quizzes**

If you miss your examination, make sure you ask the doctor to fill up the **Form for Application for Special Consideration**, and pass the form to school as soon as possible.
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:
Academic Problems

• Every year, around 5% of freshmen face academic problems after one semester
  – CAP below 2.0 (C average)
  – Have to see an academic advisor

• You don’t want to be one of them.

• What got them into academic difficulties?
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 .......*
Firstly, I had difficulty understanding programming as a whole since I had no background in computing when I first took CS1101. Therefore, learning Java 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.
• Complacency and adaptability. CS1101 is a module that I took for 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 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 practice, realized your mistake, remember them and keep going on.*
Advice for Grade-Free Semester

• Reduce stress of transition to university
• Observed issues
  – Take too many difficult courses
  – 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 courses 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 courses that suit your strengths.

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

You can drop a course with ‘W’ grade before the end of the recess week if you think that you cannot cope (need to get approval from acad advisor or mentor if below min workload).
Outline

• Degree Requirements
• Pre-allocation, CORS
• Academic Challenge and Academic Advice
• Useful Information
Undergraduate Office

• Vice Dean: Assoc Prof Lee Wee Sun
• Assistant Dean: Assoc Prof Kan Min-Yen
• Assistant Dean: Assoc Prof Irene Woon
• Assistant Dean: Mr Aaron Tan

• Senior Associate Director: Ms TOH Mui Kiat
• Managers: Mr LOW Mun Bak
• Managers: Ms Pamela Lim
• Assistant Manager: Ms Diana Wong

• Management Support Officers:
  • Mrs KWEK Wong Kay
  • Ms Rachel Lum

Office of Undergraduate Studies is located at:

COM1 Level 2 Room 19
Useful Information

- General Education [http://www.nus.edu.sg/registrar/gem/home](http://www.nus.edu.sg/registrar/gem/home)
- UG Wiki [https://docs.comp.nus.edu.sg/node/3668](https://docs.comp.nus.edu.sg/node/3668) 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://share.nus.edu.sg/soc/Lists/Jobs/AllItems.aspx](https://share.nus.edu.sg/soc/Lists/Jobs/AllItems.aspx) (you may subscribe using to the list). Similarly, you may want to subscribe to industry related announcements at [https://share.nus.edu.sg/soc/Lists/Industry%20related%20announcements/AllItems.aspx](https://share.nus.edu.sg/soc/Lists/Industry%20related%20announcements/AllItems.aspx).
Useful Information

- CORS Website: [http://www.nus.edu.sg/cors](http://www.nus.edu.sg/cors)
- Course Briefing Slides to be deposited: [http://www.comp.nus.edu.sg/undergraduates/freshmen.html](http://www.comp.nus.edu.sg/undergraduates/freshmen.html)

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

- Enquiries: SOCUG@comp.nus.edu.sg
NUS Fee Rebate Policy

- To incentivize students who are admitted into an undergraduate degree under the modular system# in NUS from AY2014/2015 and to *graduate on time in the normal candidature period (as defined in the table below).*

<table>
<thead>
<tr>
<th>S/N</th>
<th>Degree Type</th>
<th>Normal Candidature Period*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Single Degree/Joint Degree Programme (120 MC)</td>
<td>6 consecutive semesters</td>
</tr>
<tr>
<td>2</td>
<td>Single Degree/ Joint Degree Programme (160 MC)</td>
<td>8 consecutive semesters</td>
</tr>
<tr>
<td>3</td>
<td>Concurrent Degree Programme (CDP) / Double Degree Programme (DDP)</td>
<td>9 consecutive semesters</td>
</tr>
</tbody>
</table>

* The normal candidature period is defined here to include all approved Leave of Absence (LOA) periods, except those given for medical reasons.*
NUS Fee Rebate Policy

• Eligible to students who have taken NUS modules prior to their undergraduate candidature (e.g., iBLOC; NUS H3 subjects; as NUS High School students; and Polytechnic Advanced Placement Programmes) and/or Special Term modules during their undergraduate candidature and have paid tuition fees in excess of the fees commensurate with the normal candidature period.

• More details or FAQs can be found at: https://share.nus.edu.sg/registrar/student/info/FAQ-on-Fee-Rebate-Policy.pdf
Announcements

Freshmen from CS Dept who are interested in CS1101S
• Attend CS Dept briefing to find out the difference.

DDP in Maths/Applied Maths students will be preallocated CS1101S instead of CS1010. If you prefer to do CS1010 instead, please let Ms Toh Mui Kiat (tohmk@comp.nus.edu.sg) know.
What do Employers look for ...
Orbital Program

• 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
  – Work in pairs
  – Basic project – web app in Python
    • Option to propose more advanced project
  – 4 MCs independent work pass/fail
Student Clubs

NUS Computing Club
Rag and Flag
Freshman Orientation
Sports Camp
Cyber Gaming
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
What do Employers look for ... 

Project Intern

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

http://tinyurl.com/nus-project-intern
Thank you.

Q & A.