

#	Programme
1	Welcome Address by Assoc Prof CK Tham Chair, Joint Academic Committee (JAC)
2	Academic Matters by Assoc Prof V Bharadwaj CEG Year 2 Coordinator
3	Industrial Attachment Matters by Dr C P Rajesh CEG IA Coordinator
4	NOC - Start-Up your Entrepreneurial Experience by Ms Daphne Gong NUS Overseas Colleges
5	Innovation & Design Centric Programme by Assoc Prof AP Loh iDCP Director
6	Cohort Representative Election by Ms Sakai Naomi ECE Undergraduate Student Council (USC)
7	Refreshment (with CEG3 seniors)

## Joint Department Briefing for CEG2

**10 August 2017, 12pm @ LT3**

A/Prof Bharadwaj Veeravalli [elebv@nus.edu.sg](mailto:elebv@nus.edu.sg)  
CEG Year 2 Coordinator  
Joint Academic Committee (JAC)  
Department of Electrical & Computer Engineering

## PwC Prize for Whole Leadership

Donated in 2015 by PwC Singapore, the cash prize is awarded to **two** Year 2 Computer Engineering students, who demonstrated academic and non-academic excellence.

Please look out for the call for self-nomination in end-May 2018 (after sem 2, AY17/18 results release).

Refer to: [http://www.ceg.nus.edu.sg/students/awards\\_commencement.html](http://www.ceg.nus.edu.sg/students/awards_commencement.html)

## Full Degree Programme Requirements (for **AY2016/17** Direct intake)

Programme Requirements	University Level Requirements	Unrestricted Elective Requirements
125 MCs	1 x General Education Module (GEM) from: <ul style="list-style-type: none"> <li>• Human Cultures GEH1xxx</li> <li>• Quantitative Reasoning GER1000</li> <li>• Thinking and Expression GET1xxx</li> <li>• Singapore Studies GES1xxx</li> <li>• Asking Questions GEQ1000</li> </ul> 20 MCs (5 x 4 MCs each)	16 MCs, drawn from various modules offered across NUS
Total MCs = 161		

Class of Honours: determined by CAP

[http://www.ceg.nus.edu.sg/students/FFG\\_Checklists.html](http://www.ceg.nus.edu.sg/students/FFG_Checklists.html)

To Graduate

## CEG AY2016/17 Direct Intake Programme/Major Requirements

Programme Components	Modules	MCs
Faculty Requirements	<ul style="list-style-type: none"> <li>▪ CS2101 Effective Comm for Computing Professionals</li> <li>▪ EG2401 Engineering Professionalism</li> <li>▪ ES1531 Critical Thinking &amp; Writing</li> </ul>	11
Core Modules	<ul style="list-style-type: none"> <li style="width: 50%;">▪ CG1001 Intro to Comp Engrg</li> <li style="width: 50%;">▪ EE2020 Digital Fundamentals</li> <li style="width: 50%;">▪ CG1108 Electrical Engrg</li> <li style="width: 50%;">▪ EE2021 Devices &amp; Circuits</li> <li style="width: 50%;">▪ CG2023 Signals &amp; Systems</li> <li style="width: 50%;">▪ EE2024 Prog for Comp Interf</li> <li style="width: 50%;">▪ CG2271 Real-time OS</li> <li style="width: 50%;">▪ EE3204 Comp Comm Netw I</li> <li style="width: 50%;">▪ CG3207 Computer Arch</li> <li style="width: 50%;">▪ MA1505 Mathematics I</li> <li style="width: 50%;">▪ CS1010 Prog Methodology</li> <li style="width: 50%;">▪ MA1506 Mathematics II</li> <li style="width: 50%;">▪ CS1020 Data Struct &amp; Algor I</li> <li style="width: 50%;">▪ PC1432 Physics IIE</li> <li style="width: 50%;">▪ CS1231 Discrete Structures</li> <li style="width: 50%;">▪ ST2334 Probability &amp; Statistics</li> <li style="width: 50%;">▪ CS2103T Software Engrg</li> <li style="width: 50%;">▪ <b>Industrial Attachment</b></li> </ul>	80
Projects	<ul style="list-style-type: none"> <li>▪ CG3002 Embedded Systems Design Project</li> <li>▪ EE3031 Innovation &amp; Enterprise I</li> <li>▪ CG4001 B.Eng. Dissertation</li> </ul>	22
Technical Electives	Minimum 12 MCs; at least two technical Depth electives (from any concentration)	12
<b>Total MCs for Programme Requirements</b>		<b>125</b>

## Possible Schedule for CEG AY2016/17 Direct Intake (with compulsory IA)

Depending on the preferred semester for IA, the modules for sem 5 & 6 may be mutually-swapped.

Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8
CG1001 Intro to Comp Engrg (2 MCs)	CG1108 Electrical Engineering	CS2101 Effective Comm for Computing Professionals	CG2023 Signals & Systems	CG3002 Embedded Systems Design Project (6 MCs)	CP3880 ATAP	CG4001 B.Eng. Dissertation (12 MCs)	
CS1010 Programming Methodology	CS1020 Data Structures & Algorithms I	CS2103T Software Engrg	EE2024 Programming for Computer Interfaces (5 MCs)	CG3207 Computer Architecture	OR EG3611 IA	Technical Elective Breadth	Technical Elective Depth
CS1231 Discrete Structures	ES1531 Critical Thinking & Writing	EE2020 Digital Fundamentals (5 MCs)	ST2334 Probability & Statistics	EE3204 Computer Comms Networks I	(12 MCs)	GET1xxx	Technical Elective Depth
MA1505 Math I	MA1506 Math II	CG2271 Real-Time Operating Syst OR EE2021 Devices & Circuits		EG2401 Engrg Profsm (3 MCs)	EE3031 Innovation & Enterprise I	UEM	UEM
GER1000 Quantitative Reasoning	PC1432 Physics IIE	GEQ1000 Asking Questions	GEH1xxx	GES1xxx	UEM*		
ES1103*UEM							
22 MCs	20 MCs	21 MCs	21 MCs	21 MCs	20 MCs	18 MCs	18 MCs
<b>TOTAL (MINIMUM) GRADUATION REQUIREMENTS = 161 MCs</b>							

<http://www.ceg.nus.edu.sg/students/studyschedule.html>

## Possible Schedule for CEG AY2016/17

Common Engrg students streamed to CEG2 in AY2017/18

Sem 1, AY16/17	Sem 2	Sem 3, AY17/18	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8
EG1111 EPP I (6 MCs) (map to UEM)	EG1112 EPP II (6 MCs) (map to CG1108 & CG1001)	CS1020 Data Structures & Algorithms I	CG2023 Signals & Systems	CG3002 Embedded Systems Design Proj	CP3880 ATAP	CG4001 B.Eng. Dissertation (12 MCs)	
GER1000 Quantitative Reasoning	ES1531 Critical Thinking & Writing	CS1231 Discrete Structures	CG2271 Real-Time Operating Syst	CG3207 Computer Architecture	OR EG3611 IA	Technical Elective Breadth	Technical Elective Depth
MA1505 Math I	MA1506 Math II	EE2020 Digital Fundamentals (5 MCs)	CS2101 Effective Comm for Computing Professionals	EE3204 Computer Comms Networks I	(12 MCs)	GEH1xxx	Technical Elective Depth
CS1010E Programming Methodology (map to CS1010)	PC1432 Physics IIE	EE2021 Devices & Circuits	CS2103T Software Engrg	ST2334 Probability & Statistics	EE3031 Inno & Enterprise I	UEM	UEM
ES1103*/UEM	GES1xxx	GEQ1000 Asking Questions	EE2024 Prog for Computer Interfaces (5 MCs)	GET1xxx	EG2401 Engrg Profsm.		
22 MCs	22 MCs	21 MCs	21 MCs	22 MCs	19 MCs	18 MCs	18 MCs
TOTAL (MINIMUM) GRADUATION REQUIREMENTS - 160 MCs							

<http://www.ceg.nus.edu.sg/students/studyschedule.html>

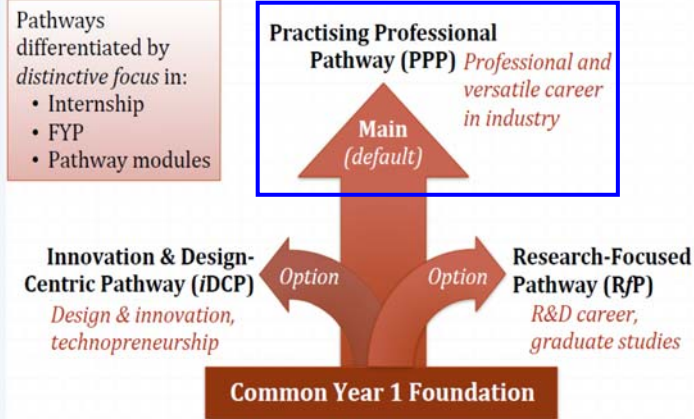
## Important

- Due to curriculum revamp, the following modules
  - will no longer be offered:
    - CG1001
    - CG1108
    - EE2021 (replaced with EE2027)
  - will cease to be offered after AY17/18:
    - EE2020 (scheduled for AY17/18, sem 1)
    - EE2024 (scheduled for AY17/18, sem 2)
- Please plan properly to ensure that you clear the Year 2 core modules without any delay. Affected students will be advised (old-new modules' mappings) accordingly.

## Three Differentiated Pathways

For AY2016/17 intake (& After)

### Tailored for You



## Three Differentiated Pathways

	Internship	FYP	Pathway requirements
PPP	Technical work	CG4001	CS2103/T & EE3031
iDCP	Startups	Refer to iDCP site <a href="http://www.eng.nus.edu.sg/edic/programme-requirements.html">http://www.eng.nus.edu.sg/edic/programme-requirements.html</a>	
RfP	Research institutions or lab	Research-based FYP	TE #1: CS4/CS5/EE5 modules TE #2: CS4/EE4/CS5/EE5 modules

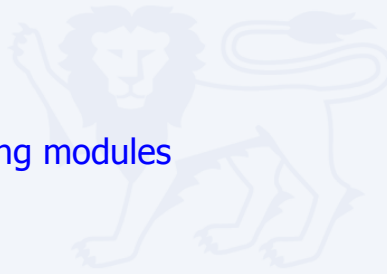
If keen in:

- iDCP, will need to take a couple of design-related modules (as UEM).
- RfP, highly recommended to take CS2309 [CS Research Methodology](#) or EG2605 Undergraduate Research Opportunities Programme, as UEM (to help in decision-making).

Refer to the [pathway mappings for CEG AY2016/17](#)

## Considerations for Planning -- Core Modules

- Core Modules can be harder than Electives
- Planning for 'borderline' cases
- Special Terms
- Industrial Attachment  
May take (up to) two evening modules



## Grade Point System

### Grade Point (GP)

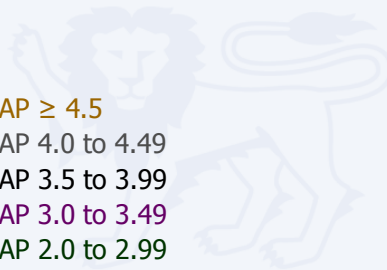
A+/A	A-	B+	B	B-	C+	C	D+	D	F
5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.5	1.0	0

### Cumulative Average Point (CAP)

$$(\sum MC_i \times GP_i) / (\sum MC_i)$$

### Honours Classification

Honours (Highest Distinction)	CAP $\geq$ 4.5
Honours (Distinction)	CAP 4.0 to 4.49
Honours (Merit)	CAP 3.5 to 3.99
Honours	CAP 3.0 to 3.49
Pass	CAP 2.0 to 2.99



## Grade Point System

### Probation and Dismissal Policy

From 3<sup>rd</sup> semester onwards:

CAP < 2.0 for current semester*	Probation
CAP < 2.0 for 2 consecutive semesters*	Dismissal

\*excluding special term

## Breadth/Depth Electives

- The technical **Breadth/Depth** electives are grouped into six concentrations, as follows:
  - **Communications & Networking**
  - **Embedded Computing**
  - **Large-Scale Computing**
  - **Intelligent Systems**
  - **Interactive Digital Media**
  - **System-On-a-Chip Design**
- **Breadth** electives provide **broad understanding** of concepts while **depth** electives provide greater **depth & coverage**.

## Breadth/Depth Electives

(Sample)

### Embedded Computing

Breadth	CS2010 Data Structures & Algorithms II
	CS2104 Programming Language Concepts
	CS2107 Introduction to Information Security
	CS2108 Introduction to Media Computing
	CS3103 Computer Networks Practice
	CS3218 Multimodal Processing in Mobile Platforms
	CS3230 Design & Analysis of Algorithms
	CS3235 Computer Security
Depth	EE3206 Introduction to Computer Vision and Image Processing
	CS4212 Compiler Design
	CS4222 Wireless Networking
	CS4236 Cryptography Theory & Practice
	CS4238 Computer Security Practice
	EE4210 Computer Communications Networks II
	EE4214 Real-time Embedded Systems
	EE4218 Embedded Hardware System Design
EE4415 Integrated Digital Design	

## Breadth/Depth Electives

You can choose technical electives from **any** concentrations  
 - AY16: Add up to at least 12 MCs AND at least two **Depth** electives

Master-list of TEs listed in the six concentrations:

[http://ceg.nus.edu.sg/students/documents/MasterlistCEGTechnicalElectivesAY14Intake\\_nAfter\\_Jul17.pdf](http://ceg.nus.edu.sg/students/documents/MasterlistCEGTechnicalElectivesAY14Intake_nAfter_Jul17.pdf)

Advisory to help you, not mandatory; refer to

[http://www.ceb.nus.edu.sg/students/documents/Advisory\\_NewCEGConc\\_23Jul13.pdf](http://www.ceb.nus.edu.sg/students/documents/Advisory_NewCEGConc_23Jul13.pdf)

Also encouraged to attend industry talks organised by the Department,  
 Faculty of Engineering, School of Computing and/or  
 NUS Centre for Future-ready Graduates.

Refer to [CEG TE page](#) for the complete/updated list of modules.



## CEG Technical Electives

Other modules hosted by CS or ECE may be used to fulfill CEG Technical Elective (TE) requirements.

Generally, a CS/EE level 3000 module will count as CEG TE **Breadth**, while a CS/EE level 4000 will count as CEG TE **Depth**.

The following level 2000 modules may count as CEG TE **Breadth**:

EE2011 Engineering Electromagnetics  
EE2025 Power Electronics  
IE2110 Operation Research I  
IE2130 Quality Engineering I

Recommended to take more technical electives, and declare the 'extras' as UEM.

## S/U Grading Option / Grade-free Scheme

(For AY2016/17 intake and after)

- Exercise S/U option for up to 32 MCs in the first two regular semesters and if not fully utilised, up to 12 MCs in subsequent semesters.
- Once an 'S' or 'U' grade is assigned to a module, it will count towards the 32 MCs limit that can be taken on an S/U basis.

The S/U option can be exercised on:

- All level 1000 modules (except for the English for Academic Purposes modules)
- Level 2000 modules with no other NUS modules as pre-requisites (unless otherwise stipulated by the Facs/Depts)

...

**i.e. CANNOT exercise S/U option on technical electives.**

## UROP

- You may want to consider doing 'Undergraduate Research Opportunities Programme (UROP)' through either FoE (EG2605) or SoC (CP3208 & CP3209).

FoE:

<https://www.eng.nus.edu.sg/undergraduatestudies/academics/enhancement-programmes/undergraduate-research-opportunities-programme-urop/>

Eligibility: Year 1 to 3 Engineering students

SoC: <http://www.comp.nus.edu.sg/programmes/ug/project/urop/>

Eligibility: A student must have completed at least 60 MCs, attained a minimum CAP of 3.8 and obtained approval from CS dept.

## SEP

Student Exchange Programme (SEP) is designed for students to go to overseas partner universities and

- experience different academic environment, new country & new culture
- make new friends and stay connected.



SEP for CEG students is administered by SoC UG Office.

Students who are keen in going for SEP in Year 3, should apply in Year 2. Round 1 application will start in late-Sept; please look out for the email blast.

<http://www.ceg.nus.edu.sg/sep/>

## Fee Rebate Policy

- Applicable for Undergraduates admitted in AY2014 & After

Students who complete their undergraduate degree programmes within the normal candidature period (as defined in below table), and have taken NUS modules prior to<sup>(a)</sup>, and/or Special Term modules during, their undergraduate candidature, are likely to have paid tuition fees in excess of the fees commensurate with the normal candidature period. Under the new fee rebate policy, such students will be eligible for a rebate on the excess tuition fees paid.

Degree Type	Normal Candidature Period <sup>(b)</sup>
Single Degree/Joint Degree Programme (120 MCs)	6 consecutive semesters
Single Degree/ Joint Degree Programme (160 MCs)	8 consecutive semesters
Concurrent Degree Programme (CDP) / Double Degree Programme (DDP)	9 consecutive semesters

a) Examples of NUS modules taken prior to the undergraduate candidature are: NUS iBLOC; NUS H3 subjects; NUS modules taken as NUS High School students; and NUS modules taken under the Polytechnic Advanced Placement Programmes.  
b) The normal candidature period is defined here to include all approved Leave of Absence (LOA) periods, except those given for medical reasons.

<http://www.nus.edu.sg/registrar/education-at-nus/undergraduate-education/fees.html#TuitionFeeRebate>

## Tuition Fees beyond Normal Candidature

- Applicable for Undergraduates admitted in AY2016 & After

- Students who take longer than the **normal candidature period\*** to complete their degree requirements will have to pay partial non-subsidized fees, culminating in full non-subsidized fees, during the extended semesters.

**\*Defined as 8 consecutive semesters for BEng degree**

- MOE tuition grant only covers up to the normal candidature period.
- Refer to <http://www.nus.edu.sg/registrar/education-at-nus/undergraduate-education/fees.html#TuitionFeebeyondNormalCandidature>

## Tuition Fees beyond Normal Candidature

Keep track of your own academic progress.

- If you fail any module(s), you should re-work your study plan/semestral workplans, e.g. take modules in the special term, so as to reduce the likelihood that you may extend beyond 4 years.
- Pay more attention to your academic progress and be responsible for your studies.

## Academic Dishonesty - Plagiarism

- All students share the responsibility for upholding the academic standards and reputation of the University. Academic honesty is a prerequisite condition in the pursuit and acquisition of knowledge.
- Academic dishonesty is any misrepresentation with the intent to deceive or failure to acknowledge the source or falsification of information or inaccuracy of statements or cheating at examinations/tests or inappropriate use of resources.
- There are many forms of academic dishonesty and plagiarism is one of them. Plagiarism is generally defined as 'the practice of taking someone else's work or ideas and passing them off as one's own'
- *The University does not condone plagiarism.*

[www.comp.nus.edu.sg/cug/plagiarism/](http://www.comp.nus.edu.sg/cug/plagiarism/)

## Academic Advisors

- Each CEG student has an Academic Advisor (AA)
  - Offers academic advice & even counselling
  - Can write letters of recommendation
- Try to meet your Academic Advisor regularly
- You are encouraged to upload your biodata to the [AA system](#) to allow your AA to know you better

## Academic and Emotional Support

- Department
  - Peer Tutoring Scheme - Interested junior students will be paired with passionate seniors who had performed well in year 1 & 2 core modules and are keen to volunteer their time to help the juniors
  - ECE Caregroup (alternate weeks) - Goal setting, making new friendships, coping with exam stress
    - If keen, email Ms Nicole Phua @ [elepwqn@nus.edu.sg](mailto:elepwqn@nus.edu.sg)
- Faculty of Engineering
  - Mr Martin Nonis, Student Support Manager @ [engnmm@nus.edu.sg](mailto:engnmm@nus.edu.sg)
- School of Computing
  - Ms Adele Chiew, Student Support Manager @ [comcmcla@nus.edu.sg](mailto:comcmcla@nus.edu.sg)

## University Health, Wellness & Counselling Centre

### Emotional & Psychological Well Being

- Anxiety, Depression
- Mental Health, Self-Worth, Shyness, Stress
- Eating Disorders
- Sudden Loss and Grief
- Feelings, Loneliness

### Relationship Issues

- Abusive Relationships, Family Stress, Managing Conflicts, Surviving a Breakup

### Personal Effectiveness

- Decision Making, Motivation, Test Anxiety, Time Management, Challenges of University Life

<http://www.nus.edu.sg/uhc/services/mental-health/student.html>

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# Q&A

