

# BEng (Computer Engineering)

<https://ceg.nus.edu.sg>

Joint programme offered by  
College of Design and Engineering (Dept of ECE) and  
School of Computing (Dept of CS)

Ravi Suppiah  
CEG Year 1 Coordinator



# CEG Joint Academic Committee

Assoc Prof Colin Tan Keng Yan (**Chair, JAC**)

Assoc Prof Bharadwaj Veeravalli (**Co-Chair, JAC**)

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Prof Anthony Tung

Assoc Prof Richard Ma

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Dr Ravi Suppiah (**Year 1 Coordinator**)

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Dr Boyd Anderson (**Year 4 Coordinator/FYP Coordinator**)

Assoc Prof Hari Krishan Garg (**FYP Coordinator**)

Mr Low Mun Bak (Manager, Admin support for CEG1 & CEG2)

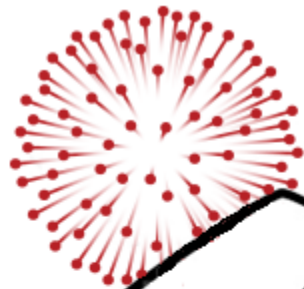
Ms Winnie Chua (Manager, Admin support for CEG3 & CEG4)



# Overview of Briefing

- What and Why Computer Engineering (CEG)?
- Programme Objectives
- Degree Programme Requirements
- Industrial Attachment and Special Programmes
- Grade Point System
- Grade-free Scheme
- Academic Advisors





Smart

Nation  
P O R E

COMPUTER  
ENGINEERING  
designing intelligence

# CEG: Designing Intelligence

Design computing systems for a smarter world

Unique multi-disciplinary programme

Conceive-Design-Implement paradigm

Industrial attachment, overseas experience



# What is Computer Engineering?

- Discipline which combines electrical engineering and computer science
- Computer engineers are involved in many aspects of computing, from low level circuit designs using computing devices to large scale integration involving hardware and software systems
- A graduate in this programme is expected to have fundamental knowledge in mathematics, physics, electronics, digital logic, programming and algorithms, computer architecture, operating systems, networks, embedded systems
- A graduate is also expected to have some experience in design of hardware and software systems
- Relevant industrial experience will also complement your knowledge and skills

# Let's See Your Seniors In Action!

- **GenIoT – Makers@SoC**
- **CG2271 – Real-Time Operating Systems**



# Characteristics of CEG Graduates

**Technical Skills:** Technically competent and innovative in solving complex problems and adapt effectively in a fast changing environment

**Thinking skills and judgment:** Critically think, analyze, and make decisions that give due consideration to global issues in business, ethics, society and environment

**Leadership, Team building:** Communicate effectively, act with integrity, have inter-personal skills needed to engage in, lead and nurture diverse teams

**Attitude:** Committed to lifelong learning, resourceful and embrace global challenges and opportunities to make a positive impact in society



# Growth Opportunities

- Internships
- Competitions
- Hackathon



## **Some FAQ (not covered in slides)**

- 1. What laptop should I get?**
- 2. Transition from NS to Uni**
- 3. Career Guidance**
- 4. Daily Effort**
- 5. Timetabling**



# The End Goal!



# Exciting Future Awaits!

## Embedded Software Engineer, Gateway

T E S L A

**Job Category** Engineering & Information Technology

**Location** PALO ALTO, California

**Req. ID** 94895

Expected Compensation

\$104,000 - \$348,000/annual salary + cash and stock awards + benefits

**Job Type** Full-time

### What to Expect

As a member of the firmware platforms development team, you will be responsible for delivering high quality embedded code running on the processors at the heart of Tesla powertrains, vehicles and energy storage systems. Join a team of deeply knowledgeable engineers that strive to build the most robust and reliable embedded systems using cutting-edge software development tools and practices. You will solve some of the most challenging problems in the embedded software space and change the way the world produces electric vehicles and delivers energy. At Tesla you'll have the ability to take a lofty goal such as 'the vehicle will park itself' into an everyday reality.

### What You'll Do

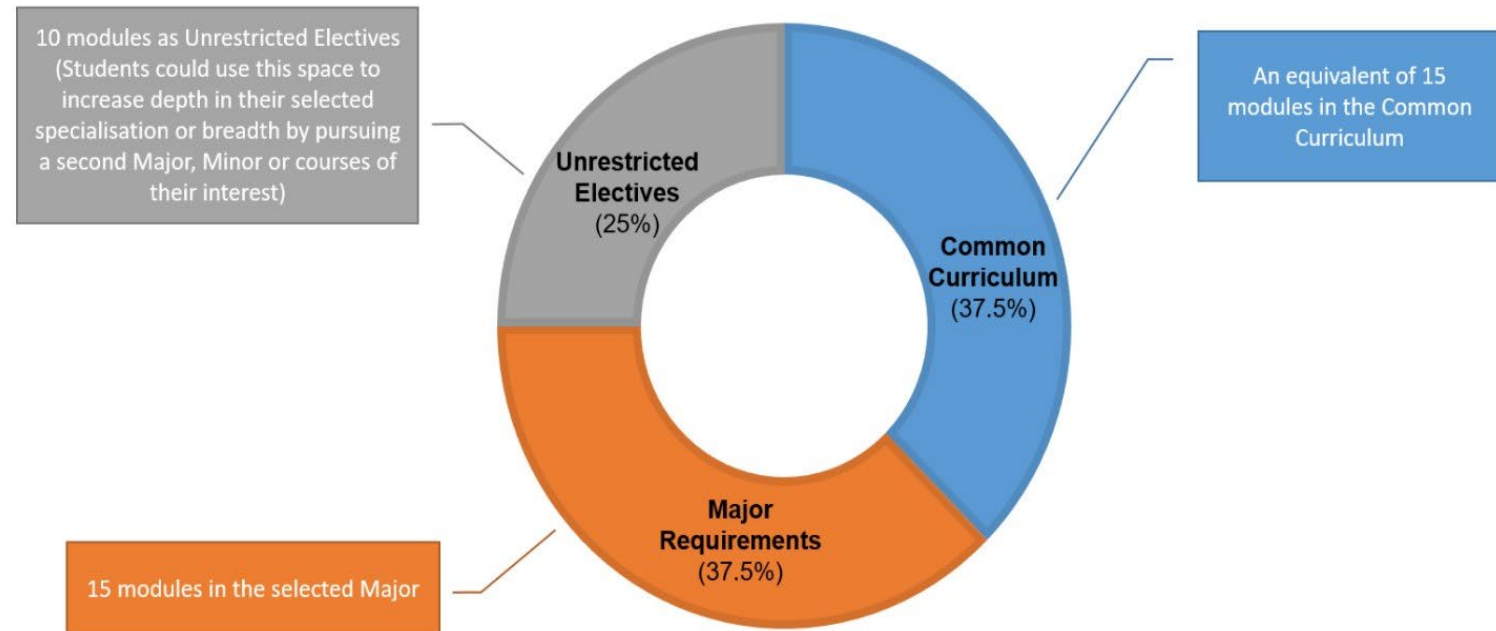
- Deliver high-quality C code in a real-time embedded environment.
- Specify, design, and implement functionality and behaviors of embedded subsystems.
- Design the software architecture and firmware implementation on hardware through integration, test and high volume manufacturing.
- Hands-on hardware bring-up, system debugging and code optimization.
- Make performance and optimization trade-offs to meet product requirements.



## Curriculum at a Glance (Cohort AY2023/24 onwards)

The Computer Engineering programme adopted a new undergraduate curriculum structure for students enrolled in the new academic year, starting August 2021. Students will read a total of 160 units (or the equivalent of 40 courses), as shown in the following schema.

The Common Curriculum is jointly developed by FoE, SDE and six industry partners who sit on the task force. It seeks to integrate knowledge and skillsets relevant to the professional training offered by both schools and to equip students with essential 21st century competencies.





# BEng (Computer Engineering)

Unrestricted	2 <sup>nd</sup> Major / Minor	2 <sup>nd</sup> Major / Minor	2 <sup>nd</sup> Major / Minor	2 <sup>nd</sup> Major/Spec/ Minor	2 <sup>nd</sup> Major/Spec/ Minor
	2 <sup>nd</sup> Major / Minor	2 <sup>nd</sup> Major / Minor	2 <sup>nd</sup> Major/Spec/ Minor / Elective	2 <sup>nd</sup> Major/Spec/ Minor / Elective	2 <sup>nd</sup> Major/Spec/ Minor / Elective
Major	Major <b>Real-Time OS</b>	Major <b>Computer Networks</b>	Major <b>Software Engg &amp; OOP</b>	Major <b>Digital Design</b>	<b>CEG Eng. Principles &amp; Practice I</b>
	Major <b>Discrete Structures</b>	Major <b>Data Structs &amp; Algos</b>	Major <b>DigCircuits&amp;CompOrg</b>	Major <b>Signals &amp; Systems</b>	<b>CEG Eng. Principles &amp; Practice II</b>
	Modelling & Simulation	Modelling & Simulation	Professio nalism	Internship	
Common	Design Thinking	Maker Space	Systems Thinking	Artificial Intelligence	Integrated Project
	Sustainable Futures	Communities & Engagement	Creating Narratives	Project Management	
	Singapore Studies	Cultures & Connections	Critique & Expression	Digital Literacy	Data Literacy

# Full BEng(CEG) Degree Requirements

(for **AY24/25** intake)

Programme Requirements	General Education Courses	Unrestricted Elective Requirements
96Units	24Units in total, comprising of : Communities and Engagement (GEN) Cultures and Connections (GEC) Critique and Expression (ES2631) Digital Literacy (CS1010) Data Literacy (GEA1000) Singapore Studies (GESS)	40 Units, drawn from courses offered across NUS (including ES1000/ES1103, if not exempted)
Total Units = 160		

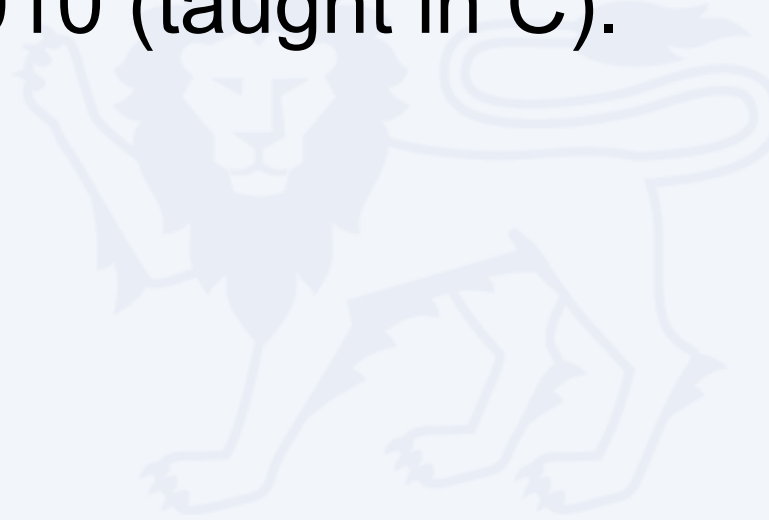
Honours Degree Classification is determined by GPA

Programme Components	Courses <b>CEG AY24/25 intake</b>	Units
Common Curriculum Requirements	<div> <ul style="list-style-type: none"> <li>▪ Singapore Studies</li> <li>▪ Cultures and Connections</li> <li>▪ Communities and Engagement</li> <li>▪ Critique and Expression</li> <li>▪ Digital Literacy</li> <li>▪ Data Literacy</li> <li>▪ Design Thinking</li> </ul> </div> <div> <ul style="list-style-type: none"> <li>▪ Maker Space</li> <li>▪ Systems Thinking</li> <li>▪ Artificial Intelligence</li> <li>▪ Sustainable Futures</li> <li>▪ Creating Narratives</li> <li>▪ Project Management</li> <li>▪ Integrated Project (8Units)</li> </ul> </div>	60
Programme Requirements	<div> <u>Engineering Core (20Units)</u> <ul style="list-style-type: none"> <li>▪ MA1511 Engineering Calculus (2Units)</li> <li>▪ MA1512 Diff Eqns for Engrg (2Units)</li> <li>▪ MA1508E Linear Algebra for Engrng (2Units)</li> <li>▪ EG2401A Engrg Professionalism (2Units)</li> <li>▪ CP3880 ATAP (12Units) or EG3611A (10Units)</li> </ul> </div> <div> <u>CEG Major (40Units)</u> <ul style="list-style-type: none"> <li>▪ CG1111A EPP1</li> <li>▪ CG2111A EPP II</li> <li>▪ CG2023 Signals &amp; Systems</li> </ul> </div> <div> <u>CEG Major (continued)</u> <ul style="list-style-type: none"> <li>▪ CG2027 Transistor level Digital Circuits (2Units)</li> <li>▪ CG2028 Computer Organisation (2Units)</li> <li>▪ CG2271 Real-time Operating Syst</li> <li>▪ CS1231 Discrete Structures</li> <li>▪ CS2040C Data Structures &amp; Algo</li> <li>▪ CS2113 Software Engrg &amp; Object-Oriented Programming</li> <li>▪ EE2026 Digital Design</li> <li>▪ EE4204 Computer Networks</li> </ul> </div>	60
Unrestricted Electives	<ul style="list-style-type: none"> <li>• <a href="#">CEG Technical Electives</a></li> <li>• <a href="#">Build Your Own Degree</a></li> </ul>	40
<b>Total Units for Programme Requirements</b>		<b>160</b>



## IMPORTANT TO NOTE

From AY24/25 onwards, CEG RNS men are Not allowed to read CS1010X (iBLOC course) or CS1010E (both taught in Python), in lieu of CS1010 (taught in C).



## Possible Schedule for CEG AY2024/25

### Direct Intake (with 6-months IA in Year 3, Sem 1)

Note: advanced courses usually have pre-requisites

#### RECOMMENDED STUDY SCHEDULE for CEG AY2024 INTAKE

##### CEG AY2024/25 Direct Intake (with 6-months Industrial Attachment in Year 3)

Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8
CG1111A EPP1	CG2111A EPP2	CS1231 Discrete Structures	CG2023 Signals & Systems	CP3880 ATAP (12 Units)  OR  EG3611A IA (10 Units)	CG2027 (2 Units) and CG2028 (2 Units)	CG4002 CEG Capstone Project (8 Units)	UE6
CS1010 Programming Methodology	DTK1234 Design Thinking	CS2040C Data Structures & Algorithms	CS2113 Software Engng & OOP		CG2271 RTOS		UE7
EG1311 Design and Make	MA1508E Linear Algebra for Engng	GEC1xxx Cultures and Connections	EE2026 Digital Design		CDE2000 Creating Narratives	EE4204 Computer Networks	UE8
MA1511 Engng Calculus (2 Units)	PF1101 Fundamentals of Project Mgmt	IE2141 Systems Thinking	EE2211 Introduction to Machine Learning	EG2401A Engng Profsm (2 Units) <sup>^</sup>	GESS1xxx Singapore Studies	GEN/C&E pillar Communities & Engagement	UE9
MA1512 Diff Eqn for Engng (2 Units)	GEA1000 Quantitative Reasoning with Data	ES2631 Critique and Communication of Thinking and Design	EG2501(recoded to CDE2501) Liveable Cities	UE2 <sup>^</sup>	UE4 e.g. ST2334	UE5	UE10
ES1103* OR UE1				UE3 <sup>^</sup> (2 Units, if took ATAP)			
20 Units	20 Units	20 Units	20 Units	20 Units	20 Units	20 Units	20 Units
TOTAL (MINIMUM) GRADUATION REQUIREMENTS = 160 Units							

<sup>^</sup>Students on Industrial Attachment (IA) are allowed to take (up to) 20 Units workload, including course that are offered in the evenings (subject to approvals and availability). Depending on the preferred semester for IA, the course for sem 5 & 6 may be mutually swapped. Students who prefer not to/are unable to take evening course(s) during IA, should take course(s) in the Special Terms (so as not to delay graduation).

#### Important:

- The three General Elective Courses (GE) and ten Unrestricted Elective Courses (UE) can be taken in any semester; the above serves as a guide
- Students are encouraged to use the UEs, totalling 40 units, to fulfil Specialisation (SPN) / Technical Elective (TE) / 2nd Major / Minor, etc. You will need to plan in advance, in order to fulfil the pre-requisite(s) of the courses required for your intended SPN / TE / 2nd Major / Minor.

\* If not exempted.

## Possible Schedule for CEG AY2024/25 Poly Intake

### RECOMMENDED STUDY SCHEDULE for CEG AY2024 INTAKE

#### CEG AY2024/25 Poly Intake

Sem 1	Sem 2	Sem 3	Sem 4	May – Jul	Sem 5	Sem 6
CG1111A EPP1	CG2111A EPP2	CG2027 Transistor-level Digital Circuits (2 Units)	CG2023 Signals & Systems	CP3200 Student Internship Programme OR EG3612 Vacation Industrial Attachment 6 Units (UE)	CG4002 CEG Capstone Project (8 Units)	CDE2000 Creating Narratives
CS1010 Programming Methodology	CS2040C Data Structures & Algorithms	CG2028 Comp Org (2 Units)	CG2271 RTOS			GESS1xxx Singapore Studies
MA1301 Introductory Math (UE1)	EE2026 Digital Design	CS2113 Software Engrg & OOP	PF1101 Fundamentals of Project Mgmt		CS1231 Discrete Structures	EE4204 Computer Networks
ES1103* OR PC1201 Fundamentals of Physics (UE2)	GEA1000 Quantitative Reasoning with Data	IE2141 Systems Thinking	EE2211 Introduction to Machine Learning		GEN/C&E pillar Communities & Engagement	UE4 (2 Units, if completed SIP/VIA)
GEC1xxx Cultures and Connections	MA1508E Linear Algebra for Engrg	ES2631 Critique and Communication of Thinking and Design	PC1201 (if not exe from ES1103) OR EG2501(recoded to CDE2501) Liveable Cities		UE3 e.g. ST2334	UE5 (if did not do SIP/VIA)
		MA1511 Engrg Calculus (2 Units)			EG2401A Engrg Profsm (2 Units)	
		MA1512 Diff Eqn for Engrg (2 Units)				
20 Units	20 Units	20 Units	20 Units	6 or 0 Units	22 Units	14 or 20 Units
TOTAL (MINIMUM) GRADUATION REQUIREMENTS = 160 Units*						

\* including Advanced Placement Credits (APCs) for DTK1234, EG1311, IA (10 Units) and UE (20 Units)

#### Important:

- Poly students are required to take MA1301 (if not exempted) as bridging Math and PC1201 as bridging Physics.
- Poly students who are exempted from MA1301, will take MA1511 and MA1512 in place, AND will need to take additional UE (to make up the 4 Units shortfall).
- Students are encouraged to use the Unrestricted Elective Courses (UE) to read CEG Technical Elective (TE) / Specialisation (SPN) / Minor. You will need to plan in advance, in order to fulfil the pre-requisite(s) of the courses required for your intended TE / SPN / Minor.

-\* If not exempted.

## Industrial Attachment (IA)

Industrial Attachment (IA) is compulsory for Direct students since AY2014/15

For **AY2023/24** intake: 24/**20** weeks in industry via either CP3880 ATAP (12 Units) OR EG3611A IA (**10** Units)

Poly students are required to take MA1301 (if not exempted) as bridging Math and PC1201 as bridging Physics.

Poly students who are exempted from MA1301, will take MA1511 and MA1512 in place AND will need to take additional UE (to make up the 4 Units shortfall).

- Students are encouraged to use the UE to read CEG Technical Elective (TE)/Specialisation (SPN)/Minor.

## General Education Courses/ University-Level Requirements

### 24 Units

#### Aims:

- Broaden students' intellectual horizons
- Develop critical and creative thinking skills
- Promote spoken and written articulatory

Cultures & Connections	Singapore Studies	Communities & Engagement	Critique & Expression	Digital Literacy	Data Literacy
4 Units GEC1xxx	4 Units GESSxxx	4 Units GEN1xxx	4 Units ES2631	4 Units CS1010	4 Units GEA1000

# Unrestricted Elective Courses

## 40 Units

### Aims:

- Explore greater breadth/depth in students' discipline
- Read complementary or contrasting minor/Second Major

### Students may use the UE space:

- to read more technical electives
  - to take up Specialisations, Second Major or Minors
  - Minor
  - Second Major
  - Double Degree
- } Look up the details on host dept's websites & email them/look out for e-blast on application  
e.g. Second Major in iDP or Minor in Data Engineering

Poly graduates are exempted from 20 Units UE (as APCs).

# Unrestricted Elective Courses

## Minor Programmes (20 Units)

- List of Minor Programmes (more than 50 Minors offered)
  - <http://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students/special-programmes/minor-programmes>
  - Up to 8 Units (40% of the MC requirements for a Minor) may be used to meet (i) the Minor requirement and (ii) another requirement, e.g., College, Faculty, Major, Second Major, Minor, Specialisation or other requirement.

## Double Major / Second Major (40 Units)

- List of Second Majors (more than 25 Second Majors offered):
  - <http://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students/special-programmes/double-major-programmes>
  - Up to 16 Units (40% of the MC requirements for a Second Major) may be used to meet (i) the Second Major requirement and (ii) another requirement, e.g., College, Faculty, Major, Second Major, Minor, Specialisation or other requirement.

## Advisory on Minor programmes

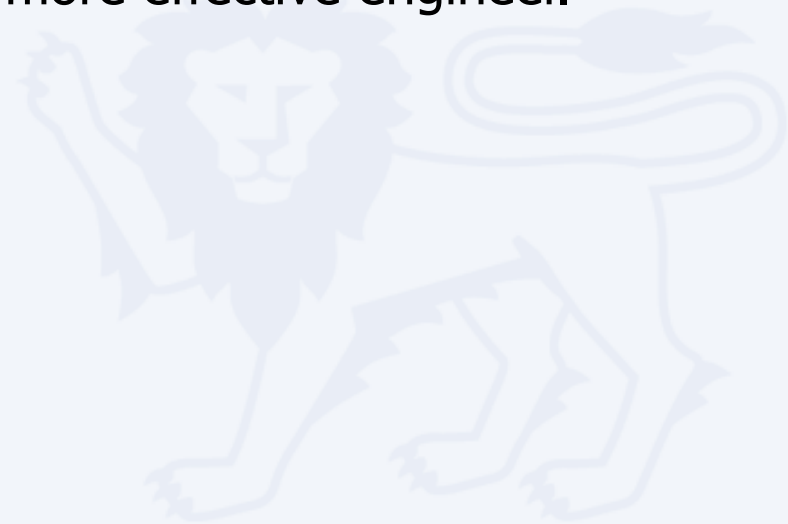
- **'Open' type:**
  - Students can declare their intention to do an open minor via Academic Plan Declaration without any prior approval from the Host Dept, no later than the end of the fifth semester of study.
- **'Restricted' type:**
  - Students are required to apply to the Host Dept and obtain approval (either via Acad Plan Declaration OR email/offline), **no later than the end of the fifth semester of study**. If approved, Host Dept will then request to update record(s) backend.

Note: Refer to the [table](#) in the website given earlier, under "Type" column



## Advisory on UE space

- Start taking steps to plan how you could use the UE space meaningfully
- You should consider/review how to use your UE **now**
- If you do not intend to do a Minor/Second Major, suggest to use your UE space to read more technical elective (TEs) and/or take up a FYP; this will help to make you a more effective engineer.



# Mapping of RVRC and UTCP courses to fulfil GE Pillars

## RVRC PROGRAMME

THE FOUR COURSES IN THE RVRC PROGRAMME CURRICULUM ARE DESIGNED TO MAP DIRECTLY TO FOUR OF THE SIX GE PILLARS. RVRC STUDENTS WHO READ THE FOUR COURSES WILL FULFIL THE REQUIREMENTS OF THE FOLLOWING GE PILLARS:

- CULTURES AND CONNECTIONS
- CRITIQUE AND EXPRESSION
- SINGAPORE STUDIES
- COMMUNITIES AND ENGAGEMENT

RVRC STUDENTS WILL READ THE REMAINING TWO GE PILLARS OF DATA LITERACY AND DIGITAL LITERACY OUTSIDE THE RVRC PROGRAMME, AS OFFERED BY THE UNIVERSITY OR THEIR HOME FACULTY.

## UTCP

THE UTCP IS DESIGNED AS AN ALTERNATIVE PATHWAY TO THE GE PROGRAMME AT NUS. UTCP STUDENTS WHO READ THE FOUR UTCP COURSES (A JUNIOR SEMINAR, AN IDEAS & EXPOSITION COURSE AND TWO SENIOR SEMINARS) WILL FULFIL THE REQUIREMENTS OF THE FOLLOWING FOUR GE PILLARS:

- CULTURES AND CONNECTIONS
- CRITIQUE AND EXPRESSION
- SINGAPORE STUDIES
- COMMUNITIES AND ENGAGEMENT

THE DATA LITERACY AND DIGITAL LITERACY PILLARS WILL NOT BE OFFERED BY THE RCS AND UTCP STUDENTS MAY READ THESE COURSES WITH THEIR FACULTIES.

# Specialisations (at least 20 Units)

- **Specialisations**

- Internet of Things
- Robotics



- **Minor in Data Engineering**

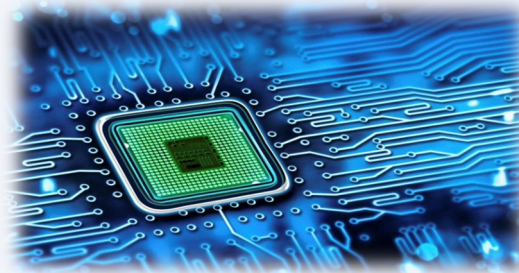
Techniques, infrastructures, frameworks and services to tease insights from the myriad of data streams being generated

- enables intelligent decision making and sense-making

# New Specialisations wef AY2023/2024 (at least 20 Units)

## Specialisations:

- Advanced Electronics
- Industry 4.0
- Space Technology



## Limit on Level-1000 courses

- Should **not** read more than 60 Units of level 1000 courses (including Programme/Major, GEs and UEs)
  - The 60 Units limit EXCLUDES CFG1002 Career Catalyst (2 Units), ES1103 English for Academic Purposes (4 Units), courses under DYOM initiatives and 20 Units UE APCs (for Poly graduates).
- Any Units over this limit will not be counted towards the Units required for graduation (160 Units). However, they will still be counted/used towards GPA computation.



# Student Exchange Programme

<https://ceg.nus.edu.sg/sep/>

Students who are keen to go for SEP in Year 3 will apply in Year 2 (Sept-Oct). Lots of prior planning required!

<https://www.nus.edu.sg/gro/global-programmes/student-exchange>

Refer for

- General queries
- Application
- Eligibility
- Course Mapping
- Financial Assistance
- etc.

Check out other enrichment programmes like NUS Overseas Colleges (NOC) etc.



# Grading System

- Graded Basis : A+, A, A-, B+, B, B-, C+, C, D+, D, F
  - Programme Requirements/Minor/2nd Major/2nd Degree courses
- Ungraded Basis
  - Satisfactory / Unsatisfactory (S/U) *option*
  - Completed Satisfactorily (CS) /Completed Unsatisfactorily (CU)

# 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 (GPA)

$$(\sum \text{Unit}_i \times \text{GP}_i) / (\sum \text{Unit}_i)$$

## Degree/Honours Classification: refer to [OUR page](#)

Honours (Highest Distinction)

GPA  $\geq 4.5$

Honours (Distinction)

GPA 4.0 to 4.49

Honours (Merit)

GPA 3.5 to 3.99

Honours

GPA 3.0 to 3.49

Pass

GPA 2.0 to 2.99



# GPA for Continuation and Graduation

For students admitted from AY16/17 onwards:

**To graduate**, an undergraduate student must have a minimum GPA of 2.00.

To remain in good academic standing, and to continue in an undergraduate programme, a student may not have GPA below 2.00 for **two consecutive semesters**.

## From third semester onwards ☹️

Academic Standing	
GPA $\geq$ 2.0	Passed/Proceed
GPA < 2.0 for current semester*	Academic Probation
GPA < 2.0 for two consecutive semesters*	Dismissal

\*excluding special term

# S/U Option

- **S/U option:** obtain either a Satisfactory (S) or an Unsatisfactory (U) record for the course
  - When exercised, excluded from the calculation of your GPA
  - 3-day window to decide on S/U after the release of exam results
  - Irrevocable!

*Note:* You must score a minimum “D” grade to get “S”. Otherwise your transcript will show “U” (Unsatisfactory) for the course.

“U” also means that the course **cannot** be counted as satisfying a pre-requisite.

# S/U Grading Option / Grade-free Scheme

## (For AY2016/17 intake and after)

- Exercise S/U option for **up to 32 Units** (or up to 20 Units for Poly graduates) in the first year 1 (i.e. **first two regular semesters and Special Term of first year of study**) ; if this is not fully utilised, the S/U option may still be exercised after the first year, for up to **12 units**.
- Once an 'S' or 'U' grade is assigned to a course, it will count towards the 32 Units limit that can be taken on an S/U basis.

### The S/U option can be exercised on:

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

...

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

<https://myportal.nus.edu.sg/studentportal/academics/ug/su-homepage.html>

# Grade-free Scheme

The S/U option can be exercised on the following courses:

- All Level 1000 courses (except for the English for Academic Purposes courses)
- All **Level 2000 courses with no other NUS courses as pre-requisites** (unless otherwise stipulated by the Faculties/Departments)
- Centre for Language Studies' language courses at all levels
- Centre for English Language Communication's (CELC) Level 2000 communication course (CS2101, ES2002, ES2007, ES2007S, ES2331, CS2301/IS2101)
- CELC/UTown College Programme's (UTCP) Ideas & Exposition 2 (IEM2201-coded)
- You can refer to <https://myportal.nus.edu.sg/studentportal/academics/all/docs/SU-FAQs.pdf> for details

## Other Information

### 1. Limit on Level 1000 courses:

Students should not read more than 60 Units of level 1000 courses towards their degree requirements (minimum of 160 Units for graduation).

### 2. Satisfactory/Unsatisfactory (S/U) option:

<https://myportal.nus.edu.sg/studentportal/academics/ug/su-homepage.html>

S/U for semester 1: late Dec; for semester 2: early June  
3 days only after results release: Check NUSNET mail for more information from NUS Office of University Registrar (OUR).

## Other Information

### 3. Foundation Academic English (ES1000) and ES1103 English for Academic Purposes

- The QET is a university-level requirement which must be fulfilled before graduation. Hence if you do not pass your QET, you must register and complete ES1000&/ES1103 EAP within the first year of study so that there will be no delay to your graduation.

#### Who may take QET 1 in July?

- All local and international students informed by the Office of University Registrar (OUR) of the requirement to take the QET
- If a student misses their assigned session or is unable to sit for QET1 without a valid reason, they will need to take QET2 at the end of Semester 1.
- ES1103 is 4 Units.
- Students may start to register for ES1103 via CourseReg system from Round 1 starting 22 July 2024.

#### What do the QET results mean?

- Students who obtain Band 1 will have to take ES1000 followed by ES1103.
- Students who obtain Band 2 will have to take ES1103.
- Students who obtain Band 3 are exempted from these English courses.

## Other Information

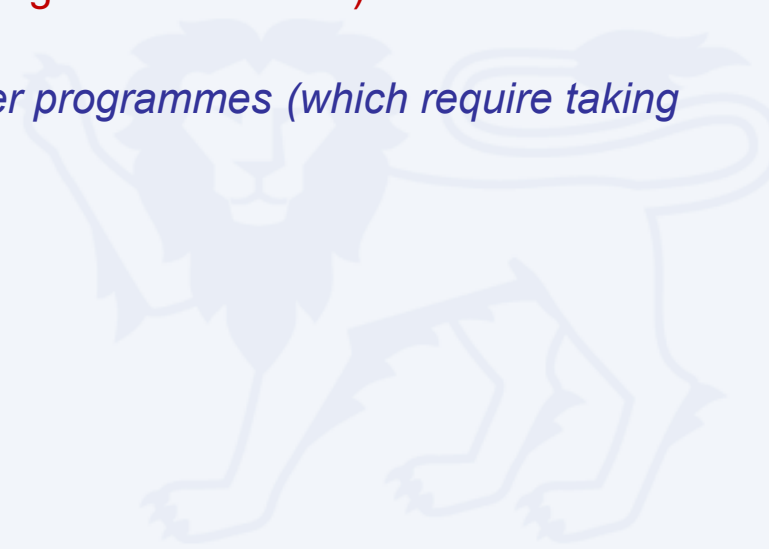
### 4. Exemptions for **Polytechnic** graduates of AY2024/25 intake admitted into CEG:

Poly graduates admitted into CEG in AY2024/25 will be granted APC for DKT1234, EG1311, IA (10Units) and UE (20Units)

### 5. Students should not exceed 23 Units (workload) in sem 1

Hence, students who need to take ES1103 (need to register in Round 1) should take it in sem 1 and delay UE to a later semester.

*The same goes for students under RVRC/UTCP/other programmes (which require taking certain prescribed course (s) in the first sem).*



## Units excluded from GPA

- Courses taken on S/U & CS/CU basis or during exchange, NOC, IA/Internship and APCs are not factored into GPA

## Minimum graded Units

Minimum graded Units (NUS courses with assigned letter-grades 'A+' to 'D', '**CS**' grade or '**S**'-grade) counted towards Degree, Major, and Minor Requirements:

- A minimum of 50% for degree requirements (residency);
- A minimum of 60% for major requirements; and
- A minimum of 16 MC for minor requirements
- Only up to 32/20 Units may be accrued from courses on S/U basis.

**Limit on level 1 courses : 60 Units max**



# Timetable

- Check your timetable at

[Timetable schedule for Year 1, Sem 1, AY24-25](#)

- CEG1 students should refer to [CEG Direct](#).  
CEG2 (Poly) students should refer to group [CEG Poly](#).

For most students, **3 (for Direct)** and **4 (for Poly)** core courses should be pre-allocated as per C0x; students should register for ES1103/ES1000 (if applicable).

# Course Registration System (CourseReg)

- Please refer to <https://nus.edu.sg/coursereg/> for more info on CourseReg@EduRec.
- The [Academic Plan declaration page](#) is accessible from 19 July 9am (Navigation: [myEduRec](#) > Academics > Acad Plan Appln/Declaration). The Academic Plan declaration user guide is located [here](#).
- All freshmen ('NEW' students) start to select courses from Round 1 i.e. **22 July 2024 onwards**.

## Can I drop a course after securing it?

Add new courses	By end of week 1
Drop courses <b>without</b> grade penalty	By end of week 2
Drop courses with ' <b>W</b> ' grade	Week 3, Day 1- last day of recess week
Drop courses with ' <b>F</b> ' grade	Week 7, Day 1 onwards

# CEG Prizes and Awards

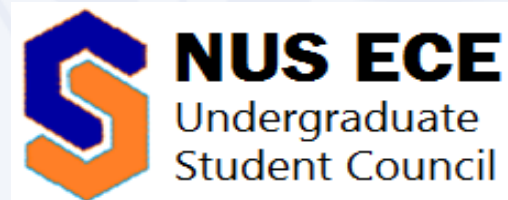
- **MAS Academic Excellence Prize:** Best Year 2 student pursuing Computing or Business Analytics or Computer Engineering degree at the SoC who has achieved a GPA of at least 3.50. The award recipients must be Singapore Citizens
- Defence Science Technology Agency Gold Medal
- IES Gold Medal
- Lee Kuan Yew Gold Medal
- IEEE Singapore Computer Society Gold Medal and Prize
- IEEE Singapore Computer Society Book Prize
- Halbrecht Associates Prize
- Alcatel-Lucent Telecommunications Prize
- IEEE Control Systems Chapter Prize

*Year 2 onwards*



# Cohort Representatives

- In Sep 2014, the ECE Dept established the **ECE Undergraduate Student Council (USC)** comprising primarily of
  - EE and CEG cohort reps
  - ECE scholars
  - Presidents of the ECE Club, IEEE NUS Student Branch and the IEEE-HKN NUS Chapter
- In accordance with the USC Constitution, **cohort reps will be elected** by the student body within **the first 2 weeks of Semester 1**



More details will be mentioned by the USC later

# 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 New Oxford Dictionary of English). The University does not condone plagiarism.

# Academic Advisor

Each CEG student is assigned an Academic Advisor/Mentor (mid-Aug)

- Advisors offer academic advice and counsel
- Advisors will write letters of recommendation for you
- See your Academic Advisor regularly so they can get to know you better

## University Health, Wellness & Counselling Centre

<http://www.nus.edu.sg/uhc/>

### Emotional & Psychological Well Being

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

### Relationship Issues

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

### Personal Effectiveness

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

# Resources

## Department

- Peer Tutoring programme
- ECE Caregroup (alternate weeks): goal setting, making new friendships, coping with exam stress

**College of Design and Engineering:** Ms Priya  
**School of Computing:** Ms Adele Chiew

University Counselling Services (UCS) @ UHC  
[Email: nuscounselling@nus.edu.sg](mailto:nuscounselling@nus.edu.sg)





<http://nus.edu.sg/uhc/>

# Tuition Fees Policy



# Tuition Fees Policy

## Tuition Fees Beyond Normal Candidature

- Students who take longer than the normal candidature period\* to complete their degree requirements will have to pay partial non-subsidized fees

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

- MOE tuition grant only covers the normal duration of the degree course
- Details can be found at:
  - <http://www.nus.edu.sg/registrar/administrative-policies-procedures/undergraduate/undergraduate-fees>
  - <https://share.nus.edu.sg/registrar/student/info/FAQ-on-Tuition-Fee-beyond-Normal-Candidature.pdf>

# Tuition Fees Policy

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## Keep track of your academic progress:

- If you fail some courses, you should re-work your semestral workplans, e.g., take courses in the special term, so as to reduce the likelihood that you may extend beyond 4 years
- Pay great attention to your academic progress and be responsible for your studies



# Student-Centric Curriculum

- Your feedback is important to us
- Multi-level feedback to improve CEG programme
  - Course level: end of the semester
  - Programme level: end of every academic year
  - To Cohort representative who can bring up matters during Staff-Student Liaison Committee (SSLC) meetings
- Survey at the beginning of the academic year
  - Your background
  - Your expectations
  - Your ambitions
- Please participate!

## Administrative Points

Please check your NUS e-mail account for future announcements:

- Your NUS account is [E000XXXX@u.nus.edu](mailto:E000XXXX@u.nus.edu)
- Please indicate your full name and your student ID: A0XXXXXX for identification when you write to us



# How to make the most of and succeed in NUS?

- Plan carefully from your first year, esp. if you are interested in SEP/NOC, Second Major etc.
- Consistent work throughout the semesters
- Attend all lectures, tutorials and labs
- Plan your projects
- Form good learning habits right from Day 1
- Get to know people around you
- Enjoy your studies!
- Many levels of help throughout the system
  - > Academic Advisors, Year Coordinators, Counselling Centre etc.

Thank You for your attention!

Questions?

