Innovation & Design Programme
Faculty of Engineering

Bachelor of Engineering (Computer Engineering) with Second Major in Innovation & Design

Cohort 2016/2017

Modular Requirements	Modular Credits (MCs)
University Level Requirements	
General education modules:	
• Quantitative Reasoning (GER1000)	4
• Thinking & Expression (GET)	4
• Human Cultures (GEH)	4
• Singapore Studies (GES)	4
• Asking Questions (GEQ1000)	4
Sub-total for University Level Requirements	**20**
Programme Requirements	
Faculty requirements:	
• ES1531 Critical Thinking & Writing [1] (or equivalent) *(Double-counted for Second Major in Innovation & Design)*	4
• CS2101 Effective Communication for Computing Professionals [1]	4
• EG2401 Engineering Professionalism	3
• ES1xxxx English [2]	-
Year 1 and core modules:	
• MA1505 Mathematics I	4
• MA1506 Mathematics II	4
• PC1432 Physics IIE	4
• CG1001 Introduction to Computer Engineering	2
• CG1108 Electrical Engineering	4
• CG2023 Signals & Systems	4
• CG2271 Real-Time Operating Systems	4
• CG3207 Computer Architecture	4
• CS1010 Programming Methodology	4
• CS1020 Data Structures & Algorithms I	4
• CS1231 Discrete Structures	4
• CS2103T Software Engineering [1]	4
• EE2020 Digital Fundamentals	5
• EE2021 Devices & Circuits	4
• EE2024 Programming for Computer Interfaces	5
• EE3204 Computer Communication Networks I	4
• ST2334 Probability & Statistics	4
CEG technical electives (at least 8 MCs of depth modules) [3, 5]	28
CEG design and project modules:	
• EG4301 DCP Dissertation or EG4301A Ideas to Start-up (over 2 consecutive semesters) *(Double-counted for Second Major in Innovation & Design and replaces CG4001 BEng Dissertation)*	12
EG3612 Vacation Internship Programme (VIP) [3, 4] *or* **CP3200 Student Internship Programme (SIP)**	6
Sub-total for Programme Requirements	**125**

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Unrestricted Elective Modules (UEM)	
• Group A module for Second Major	4
• Group B module for Second Major	4
• Group C modules for Second Major – Innovation & Enterprise electives	12
• EG3301R DCP Project [5] (over 2 consecutive semesters) *(replaces CG3002 Embedded Systems Design Project)*	12
Sub-total for Unrestricted Elective Modules	**32**
Total	**177**

Notes:

[1] Students should read CS2101 and CS2103T in the same semester as both modules are twinned. Students in USP, UTRP, and RVRC may read an equivalent module (e.g. ES1501X Academic Expository Writing) in lieu of CS2101. These students should then read CS2103 in lieu of CS2103T.

[2] Students who have not passed or been exempted from the Qualifying English Test at the point of admission will have to read ES1000 and/or ES1103. ES1103 carries 4 MCs which may be counted as UEM.

[3] Students in this Second Major are allowed to complete EG3612 (6 MCs) or CP3200 (6 MCs) plus additional technical electives (6 MCs) in lieu of EG3611 (12 MCs) or CP3880 (12 MCs).

Students may also opt to do EG3611/CP3880 (12 MCs) in lieu of EG3612/CP3200 (6 MCs) and 6 MCs of technical electives.

[4] EG3612 or CP3200 is optional for poly-intake students and those in the following special programmes: double degree programmes (DDP), concurrent degree programmes (CDP), Chemical Sciences Programme (CSP), and Global Engineering Programme (GEP).

[5] Students in this Second Major are allowed to complete additional technical electives (6 MCs) in lieu of CG3002 (6 MCs).

(updated 12 May 2018)