Innovation & Design Programme
Faculty of Engineering

Bachelor of Engineering (Environmental 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
• ES2331 Communicating Engineering [1]	4
• EG2401 Engineering Professionalism	3
• ES1xxxx English [2]	-
Year 1 and core modules:	
• MA1505 Mathematics I	4
• MA1506 Mathematics II	4
• CM1502 General & Physical Chemistry for Engineers	4
• PC1431 Physics IE	4
• CE1109 Statics & Mechanics of Materials	4
• CE2134 Hydraulics	4
• CE2183 Construction Project Management	4
• CE2407 Engineering & Uncertainty Analysis	4
• CE2409 Computer Applications in Civil Engineering	4
• ESE1001 Environmental Engineering Fundamentals	4
• ESE2001 Environmental Processes	4
• ESE2401 Water Science & Technology	4
• ESE3101 Solid & Hazardous Waste Management	4
• ESE3201 Air Quality Management	4
• ESE3301 Environmental Microbiological Principles	4
• ESE3401 Water & Wastewater Engineering I	4
Engineering process / infrastructure engineering electives	12
EVE technical electives [3, 5]	18
EVE 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 ESE4502R B.Eng. Dissertation)*	12
EG3612 Vacation Internship Programme (VIP) [3, 4]	6
Sub-total for Programme Requirements	**123**
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 ESE4501 Design Project)*	12
Sub-total for Unrestricted Elective Modules	**32**
Total	**175**

(updated 12 June 2018)

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Notes:

1   Students in USP, UTRP, and RVRC may read an equivalent module (e.g. ES1501X Academic Expository Writing) in lieu of EG1531 and/or ES2331.

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) plus additional technical electives (6 MCs) in lieu of EG3611 (12 MCs).

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

4   EG3612 (VIP) 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 (4 MCs) in lieu of ESE4501 (4 MCs).