## **Bachelor of Engineering (Biomedical Engineering)** without Second Major in Innovation & Design

## Cohort 2016/2017

Modular Requirements	Modular Credits (MCs)
University Level Requirements	
General education modules:	
<ul> <li>Quantitative Reasoning (GER1000)</li> </ul>	4
<ul> <li>Thinking &amp; Expression (GET)</li> </ul>	4
Human Cultures (GEH)	4
<ul> <li>Singapore Studies (GES)</li> </ul>	4
<ul> <li>Asking Questions (GEQ1000)</li> </ul>	4
Sub-total for University Level Requirements	20
Programme Requirements	
Faculty requirements:	
<ul> <li>ES1531 Critical Thinking &amp; Writing <sup>1</sup> (or equivalent)</li> </ul>	4
ES2331 Communicating Engineering <sup>1</sup>	4
EG2401 Engineering Professionalism	3
ES1xxxx English <sup>2</sup>	-
Year 1 and core modules:	
MA1505 Mathematics I	4
MA1506 Mathematics II	4
PC1431 Physics IE	4
PC1432 Physics IIE	4
CS1010E Programming Methodology	4
CM1501 Organic Chemistry for Engineers	4
<ul> <li>LSM1401 Fundamentals of Biochemistry</li> </ul>	4
BN2102 Bioengineering Data Analysis	4
BN2201 Quantitative Physiology for Bioengineers	4
BN2202 Introduction to Biotransport	4
BN2204 Fundamentals of Biomechanics	4
BN2401 Biosignals Processing	4
BN2402 Fundamentals of Bioinstrumentation	4
BN3301 Introduction to Biomaterials	4
BME technical electives <sup>4</sup>	20
Pathway requirements:	
Group C modules – Innovation & Enterprise electives	8
BME design and project modules:	
BN2103 Bioengineering Design Workshop	2
• EG3301R DCP Project <sup>3</sup> (over 2 consecutive semesters)	12
(replaces BN3101 Biomedical Engineering Design)	
<ul> <li>EG4301 DCP Dissertation or EG4301A Ideas to Start-up 4 (over 2</li> </ul>	12
consecutive semesters)	
(replaces BN4101 BEng Dissertation)	
EG3612 Vacation Internship Programme (VIP) 3,5	6
Sub-total for Programme Requirements	127

## Innovation & Design Programme Faculty of Engineering

Modular Requirements	Modular Credits (MCs)
Unrestricted Elective Modules (UEM)	
iDP modules:	
Group A module	4
Group B module	4
Group C module – Innovation & Enterprise elective	4
Other UEM	4
Sub-total for Unrestricted Elective Modules	16
Total	163

## Notes:

- Students in USP, UTRP, and RVRC may read an equivalent module (e.g. ES1501X Academic Expository Writing) in lieu of EG1531 and/or ES2331.
- <sup>2</sup> 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.
- <sup>3</sup> Students in the *i*DP are allowed to complete EG3612 (6 MCs) in lieu of EG3611 (12 MCs).
  - The 12 MCs for EG3301R are mapped by 6 MCs from BN3101 and 6 MCs from the replacement of EG3611 (12 MCs) with EG3612 (6 MCs).
- <sup>4</sup> The 12 MCs for EG4301 are mapped by 8 MCs from BN4101 and 4 MCs of technical electives.
- EG3612 (VIP) is optional for students in the following special programmes: double degree programmes (DDP), concurrent degree programmes (CDP), Chemical Sciences Programme (CSP), and Global Engineering Programme (GEP).