DEGREE IN BACHELOR OF ENGINEERING (INFORMATION ENGINEERING & MEDIA) PROGRAMME ADMISSION TO YEAR 1 (AY2019 Cohort)

AU Requirement Table

STUDY YEAR	MAJOR REQUIREMENTS		GER					GER-CORE (GC)	TOTAL
	CORE (C)	MAJOR PRESCRIBED ELECTIVE (PE)	PRESCRIBED ELECTIVE (PE)			UNRESTRICTED ELECTIVE (UE)			
			LA	STS	BM				
1	29/30*	-	-	-	-	-		7	36/37*
2	27	-	3 [LA/STS]		-	6		8	44
3	24	-	-	-	-	3		2	29
4	8	13	-	-	3	6		1	31
TOTAL	**88/89***	**13**	**3**		**3**	**15**		**18**	**140/141***

Curriculum Structure

COURSES		TYPE	AU	PREREQ COREQ^
YEAR 1 SEMESTER 1				
MH1810	MATHEMATICS I	C	3	
PH1011	PHYSICS *	C	3	
IM1004	DIGITAL ELECTRONICS	C	4	[with LAB]
EE1005	FROM COMPUTATIONAL THINKING TO PROGRAMING	C	3	
DA1000	THINKING AND COMMUNICATING VISUALLY I (ADM)	C	3	
GC0001	SUSTAINABILITY: SEEING THROUGH THE HAZE	GC	1	
	TOTAL		17	
YEAR 1 SEMESTER 2				
MH1811	MATHEMATICS II	C	3	MH1810^
EG0001	ENGINEERS & SOCIETY	GC	3	
IM1001	DATA STRUCTURES & ALGORITHMS	C	4	[with LAB]
IM1002	ANALOG ELECTRONICS	C	3	[with LAB]
IM1003	OBJECT-ORIENTED PROGRAMMING	C	3	
CS0205	BASIC MEDIA WRITING (SCI)	GC	3	
	TOTAL		19	
YEAR 2 SEMESTER 1				
EE0005	INTRO TO DATA SCIENCE & AI	GC	3	EE1005
IM2002	MICROPROCESSORS	C	4	[with LAB]
IM2003	COMPUTER COMMUNICATIONS	C	3	[with LAB]
IM2006	ENGINEERING MATHEMATICS I	C	4	MH1811
DV2008	INTERFACE DESIGN (ADM) △	GC	3	
HY0001	ETHICS AND MORAL REASONING	GC	1	
	GER - UNRESTRICTED ELECTIVE 1	UE	3	
ML0003	KICKSTART YOUR CAREER SUCCESS	GC	1	
	TOTAL		22	
YEAR 2 SEMESTER 2				
IM2001	SOFTWARE ENGINEERING	C	3	
IM2004	SIGNALS AND SYSTEMS	C	4	MH1810 & MH1811 [with LAB]
IM2007	ENGINEERING MATHEMATICS II	C	4	MH1811
IM2073	INTRODUCTION TO DESIGN & PROJECT	C	2	
DA2002	THINKING AND COMMUNICATING VISUALLY II (ADM)	C	3	
	GER PRESCRIBED ELECTIVE [LA/STS]	GP	3	
	GER - UNRESTRICTED ELECTIVE 2	UE	3	
	TOTAL		22	

COURSES		TYPE	AU	PREREQ COREQ^
YEAR 3 SEMESTER 1				
IM3001	DIGITAL SIGNAL PROCESSING	C	3	IM2004 [with LAB]
IM3002	COMMUNICATION PRINCIPLES	C	3	IM2004 [with LAB]
IM3003	INFORMATION SECURITY	C	3	
IM3080	DESIGN & INNOVATION PROJECT	C	2	
DA3000	THINKING AND COMMUNICATING VISUALLY III (ADM)	C	3	
HW0288	ENGINEERING COMMUNICATION II	GC	2	HW0188#
	GER - UNRESTRICTED ELECTIVE 3	UE	3	
	TOTAL		19	
YEAR 3 SEMESTER 2				
IM3279	PROFESSIONAL INTERNSHIP +	C	10	ML0003
	TOTAL		10	
YEAR 4 SEMESTER 1				
IM4080	FINAL YEAR PROJECT	C	4	
IM4XXX	DESIGN ELECTIVE 1	P	2	
IM4XXX	TECHNICAL ELECTIVE 1	P	3	
IM4XXX	TECHNICAL ELECTIVE 2	P	3	
ET0001	ENTERPRISE AND INNOVATION	GC	1	
	GER PRESCRIBED ELECTIVE [BM]	GP	3	
	TOTAL		16	
YEAR 4 SEMESTER 2				
IM4080	FINAL YEAR PROJECT	C	4	
IM4XXX	DESIGN ELECTIVE 2/TECHNICAL ELECTIVE 4	P	2	
IM4XXX	TECHNICAL ELECTIVE 3	P	3	
	GER - UNRESTRICTED ELECTIVE 4	UE	3	
	GER - UNRESTRICTED ELECTIVE 5	UE	3	
	TOTAL		15	

Note:
* Students without A-level Physics will read PH1012 Physic A (4 AUs).
# IEM students are waived of its pre-requisite (HW0188), on condition that they pass CS0204.
+ Professional Internship (PI) is available in Year 3 Semester 1 or 2.
△ Students who have cleared CS2006 as GER-Core in AY2019 Semester 1 and before could only register DV2008 as Major PE.

http://www.eee.ntu.edu.sg/programmes/CurrentStudents/undergraduate/undergraduatefull-time/Pages/Home.aspx

FINAL YEAR DESIGN/TECHNICAL ELECTIVES (IEM MAJOR-PE)

Students are required to choose <u>1 Design Elective and 4 Technical Electives</u>; or <u>2 Design Electives and 3 Technical Electives</u>.

Design Electives	
IM4105 Cellular Communication System Design	IM4413 DSP System Design
IM4717 Web Application Design	EE4414 Machine Learning Design and Application
IM4718 Enterprise Network Design	

Technical Electives	
EE4491 Probability Theory and Applications	IM4476 Image Processing
EE4497 Pattern Recognition and Machine Learning	IM4478 Digital Video Processing
IM4756 Computer Architecture	IM4483 Artificial Intelligence and Data Mining
IM4761 Computer Networking	IM4490 Multimedia Systems
IM4791 Database Systems	CE4001 Virtual and Augmented Reality (SCE) ^
IM4152 Digital Communications	CE4002 Visual Information Processing and Management (SCE) ^
IM4153 Telecommunication Systems	CE4003 Computer Vision (SCE) ^
IM4188 Wireless Communications	CE4004 3D Modelling and Animation (SCE) ^
IM4455 Embedded Systems	CE4015 Simulation and Modelling (SCE) ^
IM4475 Audio Signal Processing	

Students should not take more than 2 courses from the following group of Technical Electives:

CS2024 Web Design and Technologies (SCI) ^

CS2025 Image and Sound Production (SCI) ^

CS2030 Audio in Media (SCI) ^

DV2008 Interface Design (ADM) ^

DM2000 Interactive I (ADM) ^

DM2007 Interactive II (ADM) ^

^ Vacancy is subject to availability

Note:
- The curriculum is subjected to review and change.
- Certain Major-PEs may be offered as GER-PE / GER-UE. Re-classification of course type from GER-UE / GER-PE to Major-PE (and vice versa) after course registration are not allowed.

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