

NAME: _____
 Contact No: _____

Date: _____
 MATRIC NUMBER: _____

FFG Checklist for EE Direct Entry Poly students of AY2015 intake:

	HAVE I FULFILLED THE FOLLOWING REQUIREMENTS ?	No. of MCs	Tick if fulfilled
1.	<p>University Level Requirements (ULR)</p> <p>(i) General Education (GE) Modules Students are required to read 20 MCs of GE modules consisting of: GEHxxxx - Human Cultures (HC) pillar GEQxxxx - Asking Questions (AQ) pillar GER1000 - Quantitative Reasoning (QR) pillar GESxxxx - Singapore Studies (SS) pillar GET1021 - Thinking and Expression (T&E) pillar</p>	20	
2.	<p>Unrestricted Elective Modules (UEM):</p> <p>To be acquired through:</p> <p>(i) Enhancement Programmes</p> <ul style="list-style-type: none"> ▪ EG3602/T Vacation Internship Prg (VIP) – 6 MCs ▪ EG1603, EG2603A, EG2603B Technopreneurship & Incubation Prg (TIP) – 2/2/8 MCs respectively ▪ EG2604 Innovation Prg (IP) – 4 MCs ▪ EG2605 Undergraduate Research Opportunities Prg (UROP) – 4 MCs ▪ EG2606A/B Independent Work Prg (IWP) – 2/4 MCs respectively <p>MCs of each prg can be obtained <u>only once</u>. Students can do <u>either</u> IAP or VIP, but <u>not</u> both. For more info, pls refer to http://www.eng.nus.edu.sg/undergrad/epmc/ep.html</p> <p>(ii) BUSINESS requirements Students are strongly encouraged to read at least 1 business/management module from the School of Business (SoB) or the Engineering Technology Management Division (ETM).</p> <p>(iii) Recommended modules Recommended ULR Breadth outside student's faculty (see section 1(i) above BSP1004X / BSP1005 / ACC1002X / MKT1003X / MNO1001X / MNO3301 / DSC2006 / ES2007S / EC1301 / SC1101E. Other modules offered as UEM (module type code 27) by other faculties can also be taken by students to fulfil their UEM requirements.</p> <p>(iv) Minor Prgs Please refer to http://www.eng.nus.edu.sg/uqrad/SP_minors.html</p> <p>(v) ECE Technical Electives (for students who wish to achieve greater specialization in ECE fields)</p> <p>(vi) University Scholars Prg (USP) For more info, pls refer to http://www.eng.nus.edu.sg/uqrad/SP_usp.html</p> <p>(vii) NUS Overseas Colleges (NOC) For more info, pls refer to http://www.overseas.nus.edu.sg/noc/</p> <p>(viii) MA1301 Introductory Mathematics (4 MCs) will count as UEM for poly students.</p> <p>(ix) EG1109 Statics & Mechanics of Materials (4 MCs), MLE1101 Introductory Materials Science & Engineering (4 MCs), PC1431 Physics IE & PC1432 Physics IIE (4 MCs each) will count as UEMs for those common engineering students (of AY2015 intake) who are <u>streamed to EE in Year 2</u>.</p>	16 POY1901 POY1902 POY1903 -12 MCs EXE	

3.	Programme Requirements		124
3.1	Faculty Requirements:	Sub-total – 10 MCs	
	http://www.eng.nus.edu.sg/ugrad/MS_facultyrequirements2015.html		
		(4 MCs)	
	(i) ES2331 Communicating Engineering (module type code 01) (and GET1021 Critical Thinking and Writing under ULR)		ES2331 -EXE
	OR		
	(ii) ES1501_ / ES1601 (Upon invitation from FoE, module type code 01) : Students who read ES1501_ / ES1601 need not read GET1021 & ES2331. They need to take a GE module (other than GET1021) separately to fulfil T&E requirement under ULR.		
	OR		
	(iii) For students residing in U-Town: UTW1001_ and UTW2001_ (these fulfil GE - T&E pillar under ULR) (and students need to read ES2331 to fulfil B.Eng Faculty requirements.)		
	EG2401 Engineering Professionalism	(3 MCs)	
	HR2002 Understanding Human Relations in the New Economy	(3 MCs)	EXE
3.2	Major Requirements:	Sub-total –114 MCs	
	<u>YEAR 1 MODULES:</u>		
	MA1505 Mathematics I	(4 MCs)	
	MA1506 Mathematics II	(4 MCs)	
	CS1010E Programming Methodology	(4 MCs)	
	EE1001 Emerging Technologies in Electrical Engineering	(4 MCs)	
	EE1002 Introduction to Circuits and Systems	(4 MCs)	EXE
	<i>< EG1108 Electrical Engineering (3 MCs) will be mapped to EE1002 for those common engineering students who are streamed to EE in Year 2. See * note 1 below. ></i>		
	EE1003 Introduction to Signals and Communications	(4 MCs)	
	<u>ECE CORE MODULES:</u>		
	EE2020 Digital Fundamentals	(5 MCs)	
	EE2021 Devices and Circuits	(4 MCs)	
	EE2025 Power Electronics	(4 MCs)	
	EE2023 Signals and Systems	(4 MCs)	
	EE2024 Programming for Computer Interfaces	(5 MCs)	
	EE2031 Circuits & Systems Design Lab	(3 MCs)	
	EE2032 Signals & Communications Design Lab	(3 MCs)	
	EE2011 Engineering Electromagnetics	(4 MCs)	
	EE2012 Analytical Methods in ECE	(4 MCs)	
	PC2232 Physics for Electrical Engineers	(4 MCs)	
	<u>ECE CORE – PROJECTS:</u>		
	EE3031 Innovation & Enterprise I	(4 MCs)	
	EE4001 B.Eng. Dissertation	(12 MCs)	
	<u>Industrial Attachment (IA):</u>		
	EG3601 Industrial Attachment Programme	(12 MCs)	
	Note: Poly students do not need to go on IA. In lieu of the 12 MC for IA, poly students must fulfil bridging modules and technical elective(s):		
	▪ PC1222 + One Free Elective (Exempted) i.e. POY1911 + 1 technical outer core breadth elective (4 MCs) / * EG3602 VIP (6 MCs)		POY1911 -4 MCs EXE

	<p><u>ECE TECHNICAL ELECTIVES:</u> Minimum total of at least 22 MCs of Technical electives as follows: NOTE: at least 16 MCs of electives must be EExxxx.</p> <p>(a) Breadth (B) requirements - at least 2 technical outer core breadth electives from 2 different outer core concentrations</p> <p>(b) Depth (D) requirements - at least 2 technical depth electives from any concentration</p> <p>(c) ♦ TWO technical electives consisting: At least 1 technical breadth/depth elective from any concentration + One Free Elective (Exempted) i.e. POY1912 ; <u>or</u> ♦ EE3032 (6 MCs) ; <u>or</u> ♦ One Free Elective (Exempted) i.e. POY1912 - if already taken * EG3602 VIP (6 MCs) in lieu of IA</p> <p>Note: 1. All technical electives must add up to at least 22 MCs. If not, student has to take more technical electives to make up to 22 MCs.</p> <p>2. E.g 1: 4B + 2D : Student takes – EE3131C and EE3408C to fulfil the 2B from 2 different outer core concentrations ; EE4210 and EE4306 to fulfil 2D from any conc ; EE3204 to fulfil the 1B/D from any concentration. EE3331C to add up to at least 22 MCs;</p> <p>E.g 2: 3B + 3D : Student takes – EE3431C and EE3731C from 2 different outer core concentrations ; EE4101 and EE4431 to fulfil 2D from any conc ; EE4218 to fulfil the 1B/D. EE3104C to add up to at least 22 MCs</p> <p>3. The MCs of ME4245 and CG3207 are counted towards EExxxx MCs.</p> <p>4. A technical outer core breadth elective is EExxxxC and it can be also considered as a technical breadth elective. A technical breadth elective is EExxxx but it is not a technical outer core breadth elective.</p> <p>5. Refer to latest list of ECE Master list of Technical electives at ECE Year 3 & 4 website https://www.ece.nus.edu.sg/intranet/Students/</p>	<p>POY1912 -4 MCs EXE</p>	
	Have I fulfilled all requirements to graduate?	160 (min) 162	

Note: The above curriculum information may be subjected to further revisions by ECE Dept.

Other information:

1. * EG1108 Electrical Engineering (3 MC) to be mapped to EE1002 Introduction to Circuits & Systems (4 MC)

This is applicable to common engineering students (of AY2014 intake) who are streamed to EE in Year 2 and taken EG1108 (3 MCs) mapped to EE1002 (4 MCs) who will need to make up for the shortage of 1 MC due to the mapping, with additional ULR/UEM modules, i.e. they need to fulfil 21 MCs of ULR or 17 MCs of UEM.

2. Limit on Level 1000 modules:

Students should not read more than 60 MCs of level 1000 modules towards their degree requirements (minimum of 160 MCs for graduation.) http://www.eng.nus.edu.sg/ugrad/SI_faq.html#A9

What will happen to the extra MCs if I read more than the allowed number of level 1000 modules?

These extra MCs will not be counted towards the total number of MCs required for graduation. However, they will still be counted towards the computation of CAP.

3. S/U Option / Grade-free semester for AY2015 intake:

Please refer to the following links for more information on S/U Option:

http://www.eng.nus.edu.sg/ugrad/SI_su_policies2014.html and
<https://share.nus.edu.sg/registrar/student/info/SU-FAQ-fromAY2004.pdf>

4. Exemptions for Poly graduates of intakes AY2015/16 admitted into EE :

Poly graduates admitted into the EE in AY2015/16 will follow AY2015/2016 EE curricula.

They may be eligible for the following exemptions (up to 40 MCs) from the following list, depending on the Diploma from the polytechnics.

Please refer to https://www.ece.nus.edu.sg/education/undergraduate/EE/pdf/Poly%20Exemptions_AY1516%20intake_5Feb2015.pdf

- **Unrestricted Elective Modules (UEMs up to 12MCs)**

- **Faculty/Programme Requirements (up to 20MCs)**

ES2331 Communicating Engineering	4 MCs
HR2002 Understanding Human Relations in the New Economy	3 MCs
EE1002 Introduction to Circuits and Systems	4 MCs (exempted for some diplomas, refer to above link for more info)
Free Electives	8 MCs

5. Module Type Code:

11	Technical/Program Essential	A9	GEM A: SCIENCE AND TECHNOLOGY MODULE
12	Technical /Program Elective	B9	GEM B: HUMANITIES AND SOCIAL SCIENCES MODULE
14	Supportive Essential	C9	GEM A (SCI. & TECH.) & GEM B (HUMANITIES & SOC SCI.)
17	MINOR/MAJOR MODULE TO BE COMPUTED IN CAP	S9	SINGAPORE STUDIES MODULE
27	UEM (UNRESTRICTED ELECTIVE OUTSIDE MAJOR)	MB	DOUBLE COUNT (MINOR/MAJOR & ULR BREADTH)
U9	ULR BREADTH (ELECTIVES OUTSIDE STUDENT'S FACULTY)	ME	DOUBLE COUNT (MINOR/MAJOR & TECHNICAL ELECTIVE)
		MU	DOUBLE COUNT (MINOR & UEM)

For conversion of module type code, please refer to http://www.eng.nus.edu.sg/ugrad/SI_Module_declaration.html

6. Useful links for students residing at U-Town/Ridge View:

- College of Alice & Peter Tan <http://capt.nus.edu.sg/academic-programme/overview> <http://capt.nus.edu.sg/academic-programme/college-modules>
Email contact: captbox2@nus.edu.sg
- Tembusu College <http://tembusu.nus.edu.sg/education/index.php>
Email contact : tembusu-modules@nus.edu.sg
- Ridge View Residential College: <http://www.rvrc.nus.edu.sg/programme-Overview.html>
Email contact: rvrc@nus.edu.sg

7. SUMMARY of options for IA in-lieu and ECE Tech elective requirements:**For students of AY2015/2016 Poly intake:****Industrial Attachment (IA):**

EG3601 Industrial Attachment Programme (12 MCs)

Note: Poly students do not need to go on IA. In lieu of the 12 MC for IA, poly students must fulfil bridging modules and technical elective(s):

- PC1222 + One Free Elective (Exempted) i.e. POY1911 + 1 technical outer core breadth elective (4 MCs) / * EG3602 VIP (6 MCs)

SUMMARY of OPTIONS for IA in-lieu and ECE Tech elective requirements:

- Option 1: With VIP**
 - Take PC1222 (4MC) + POY1911 (4 MC) + VIP (6MC)
 - ⇒ Take 4 Tech electives = 2 outer core + 2 depth T.E to fulfil ECE Technical Electives rule.
- Option 2: No VIP**
 - Take PC1222 (4MC) + POY1911 (4MC) + 1 Outer core (4 MC)
 - ⇒ Take 6 Tech electives = 3 outer core + 2 depth T.E + 1 B/D to fulfil ECE Technical Electives rule.

Legend for ECE Technical Electives (T.E):

Outer core: Outer core Breadth Technical Elective – E.g. EE3xxxC

B : Breadth Technical Elective – E.g. EE3xxxC, EE3xxx

D : Depth Technical Elective – E.g. EE4xxx