

NAME: \_\_\_\_\_  
Contact No: \_\_\_\_\_Date: \_\_\_\_\_  
MATRIC NUMBER: \_\_\_\_\_

## **FFG Checklist for EE of AY2014 intake**

### **(direct entry to EE1 in AY2014 / streamed to EE in Year2 in AY2015)**

	HAVE I FULFILLED THE FOLLOWING REQUIREMENTS ?	No. of MCs	Tick if fulfilled
1.	<b>University Level Requirements (ULR):</b>	<b>20</b>	
	<p><b>(i) GEM/SS/ULR Breadth:</b></p> <p>Students are <b>required</b> to read 20 MCs of the ULR consisting of:</p> <ul style="list-style-type: none"> <li>▪ 2 x *GEM modules (8 MCs)</li> <li>▪ 1 SS (4 MCs)</li> <li>▪ 2 ** ULR Breadth outside student's Faculty (8 MCs)</li> </ul> <p>Note: * <u>At least</u> 1 GEM module <b>must</b> be from Subject Group B: Humanities and Social Science.  <u>Student must take GEK1549 Critical Thinking and Writing</u> (compulsory) – under GEM Subject Group A: Science &amp; Technology to fulfil ULR, <u>and</u> ES2331 to fulfil Faculty Requirement.            Singapore Studies (SS) module – SSA2204 or SSA2211 (recommended)</p> <p>Recommended ULR Breadth outside student's faculty:    BSP1004X / BSP1005 / ACC1002X / MKT1003X / MNO1001X / MNO3301 / DSC2006 / ES2007S / EC1301 / SC1101E.            Breadth can also be used to meet <b>UEM requirements</b>. See section 2(iii) below.            Other modules offered as ULR Breadth (module type code <b>U9</b>) by other faculties can also be taken by students to fulfil their ULR Breadth requirements.</p>		
	<p><b>(ii) BUSINESS requirements</b></p> <p>Students are <b>strongly encouraged</b> to read <b>at least 1 business/management module</b> from the School of Business (SoB) or the Engineering Technology Management Division (ETM).            Students may use this business module to meet <b>ULR Breadth outside student's faculty or UEM requirements</b> (see section 2(iii) below).</p>		
	<p><b>(iii) Minor Prgs</b></p> <p>A student may use up to <b>20 MCs to satisfy their UEM</b> (see section 2(ii) below) and another <b>8 MCs for their ULR Breadth outside student's faculty</b>.            For more info, please refer to <a href="http://www.eng.nus.edu.sg/ugrad/SP_minors.html">http://www.eng.nus.edu.sg/ugrad/SP_minors.html</a></p>		
	<p><b>(iv) University Scholars Prg (USP)</b></p> <p>For USP students, please refer to <a href="http://www.eng.nus.edu.sg/ugrad/SP_usp.html">http://www.eng.nus.edu.sg/ugrad/SP_usp.html</a></p>		
	<p><b>(v) PC1431 Physics IE &amp; PC1432 Physics IIE (4 MCs each)</b> will count as ULR Breadths for those common engineering students who are <u>streamed</u> to EE in Year 2.</p>		
2.	<b>Unrestricted Elective Modules (UEM):</b>	<b>16</b>	
	<p>To be acquired through:</p> <p><b>(i) Enhancement Programmes</b></p> <ul style="list-style-type: none"> <li>▪ EG3602/T Vacation Internship Prg (VIP) – 6 MCs</li> <li>▪ EG1603, EG2603A, EG2603B Technopreneurship &amp; Incubation Prg (TIP) – 2/2/8 MCs respectively</li> <li>▪ EG2604 Innovation Prg (IP) – 4 MCs</li> <li>▪ EG2605 Undergraduate Research Opportunities Prg (UROPO) – 4 MCs</li> <li>▪ EG2606A/B Independent Work Prg (IWP) – 2/4 MCs respectively</li> </ul> <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, please refer to <a href="http://www.eng.nus.edu.sg/undergrad/epmc/ep.html">http://www.eng.nus.edu.sg/undergrad/epmc/ep.html</a></p>		
	<p><b>(ii) BUSINESS requirements</b></p> <p>Students are <b>strongly encouraged</b> to read <b>at least 1 business/management module</b> from the School of Business (SoB) or the Engineering Technology Management Division (ETM). . Students may use this business module to meet <b>ULR Breadth outside student's faculty or UEM requirements</b> (see section 1(ii) above).</p>		
	<p><b>(iii) Recommended modules</b></p>		

	<p>Recommended ULR Breadth outside student's faculty (see section 1(i) above BSP1004X / BSP1005 / ACC1002X / MKT1003X / MNO1001X / MNO3301 / DSC2006 / ES2007S / EC1301 / SC1101E. . (These recommended ULR Breadth modules can also be used to meet <b>UEM requirements</b>).</p> <p>Other modules offered as UEM (module type code <b>27</b>) by other faculties can also be taken by students to fulfil their UEM requirements.</p>		
	<p><b>(iv) Minor Prqs</b> A student may use up to <b>20 MCs to satisfy their UEM</b> and another <b>8 MCs for their ULR Breadth outside student's faculty</b> (see section 1(iii) above). For more info, pls refer to <a href="http://www.eng.nus.edu.sg/ugrad/SP_minors.html">http://www.eng.nus.edu.sg/ugrad/SP_minors.html</a></p>		
	<p><b>(v) ECE Technical Electives</b> (for students who wish to achieve greater specialization in ECE fields)</p>		
	<p><b>(vi) University Scholars Prq (USP)</b> For more info, pls refer to <a href="http://www.eng.nus.edu.sg/ugrad/SP_usp.html">http://www.eng.nus.edu.sg/ugrad/SP_usp.html</a></p>		
	<p><b>(vii) NUS Overseas Colleges (NOC)</b> For more info, pls refer to <a href="http://www.overseas.nus.edu.sg/noc/">http://www.overseas.nus.edu.sg/noc/</a></p>		
	<p><b>(viii) EG1109 Statics &amp; Mechanics of Materials (4 MCs) &amp; MLE1101 Introductory Materials Science &amp; Engineering (4 MCs)</b> will count as UEMs for those common engineering students (of AY2010 intake) who are <u>streamed to EE in Year 2</u>.</p>		
3.	<b>Programme Requirements</b>	<b>126</b>	
3.1	<p><b>Faculty Requirements:</b> Sub-total – 10 MCs <a href="http://www.eng.nus.edu.sg/ugrad/MS_facultyrequirements2014.html">http://www.eng.nus.edu.sg/ugrad/MS_facultyrequirements2014.html</a></p>		
		(4 MCs)	
	<p>(i) ES2331 Communicating Engineering (module type code 01) ( <b>and</b> GEK1549 Critical Thinking and Writing under ULR</p> <p><u>OR</u></p> <p>(ii) ES1501_ (Upon invitation from FoE, module type code 01) : Students who read ES1501_ need not read GEK1549 &amp; ES2331. They need to take a module to fulfil GEM A requirement separately.</p> <p><u>OR</u></p> <p>(iii) For students residing in U-Town: IEM1201_ (in lieu of Critical Thinking &amp; writing requirement, module type code 27/U9) ( <b>and</b> IEM2201_ [with pre-req of IEM1201_ ] in lieu of ES2331, module type code 01 ) Students have to take a module to fulfil GEM A requirement separately.</p> <p><u>OR</u></p> <p>(iv) For students residing in Ridge View: ES1601 : Students who read ES1601 need not read GEK1549 &amp; ES2331. They need to take a module to fulfil GEM A requirement separately. (ES1601 under module type code 01).</p>		
	EG2401 Engineering Professionalism	(3 MCs)	
	HR2002 Understanding Human Relations in the New Economy	(3 MCs)	
3.2	<b>Major Requirements:</b> Sub-total –114 MCs		
	<b>YEAR 1 MODULES:</b>		
	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)	
	<i>&lt; EG1108 Electrical Engineering (3 MCs) will be mapped to EE1002 for those common engineering students who are <u>streamed to EE in Year 2</u>. See * note 1 below. &gt;</i>		
	EE1003 Introduction to Signals and Communications	(4 MCs)	

<b><u>ECE CORE MODULES:</u></b>			
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)		
<b><u>ECE CORE – PROJECTS:</u></b>			
EE3031 Innovation & Enterprise I	(4 MCs)		
EE4001 B.Eng. Dissertation	(12 MCs)		
<b><u>Industrial Attachment (IA):</u></b>			
EG3601 Industrial Attachment Programme	(12 MCs)		
<b><u>ECE TECHNICAL ELECTIVES:</u></b>			
Minimum total of <b>at least 22 MCs</b> of Technical electives as follows: NOTE: <b>at least 16 MCs of electives must be EExxxx.</b>			
(a) Breadth (B) requirements - at least <b>2 technical breadth electives from 2 <i>different</i> outer core concentrations</b>			
(b) Depth (D) requirements - at least <b>2 technical depth electives from <i>any</i> concentration</b>			
(c) EE3032 (6 MCs) <b>or</b> TWO technical electives consisting: At least <b>1 technical breadth/depth elective from <i>any</i> concentration</b> and <b>1 technical outer core breadth elective</b>			
Note: 1. <b>All technical electives must add up to 22 MCs. If not, student has to take more technical electives to make up to 22 MCs.</b>			
2. <b>E.g 1: 4B + 2D</b> : 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;			
<b>E.g 2: 3B + 3D</b> : 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			
3. The MCs of ME4245 and CG3207 are counted towards EExxxx MCs.			
<b>Have I fulfilled all requirements to graduate?</b>			<b>162 (min)</b>

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

### **Other information:**

- \* 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](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 AY2014 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](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. 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](http://www.eng.nus.edu.sg/ugrad/SI_Module_declaration.html)

## 5. 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](mailto:captbox2@nus.edu.sg)
- Tembusu College <http://tembusu.nus.edu.sg/education/index.php>  
Email contact : [tembusu-modules@nus.edu.sg](mailto:tembusu-modules@nus.edu.sg)
- Ridge View Residential College: <http://www.rvrc.nus.edu.sg/programme-Overview.html>  
Email contact: [rvrc@nus.edu.sg](mailto:rvrc@nus.edu.sg)