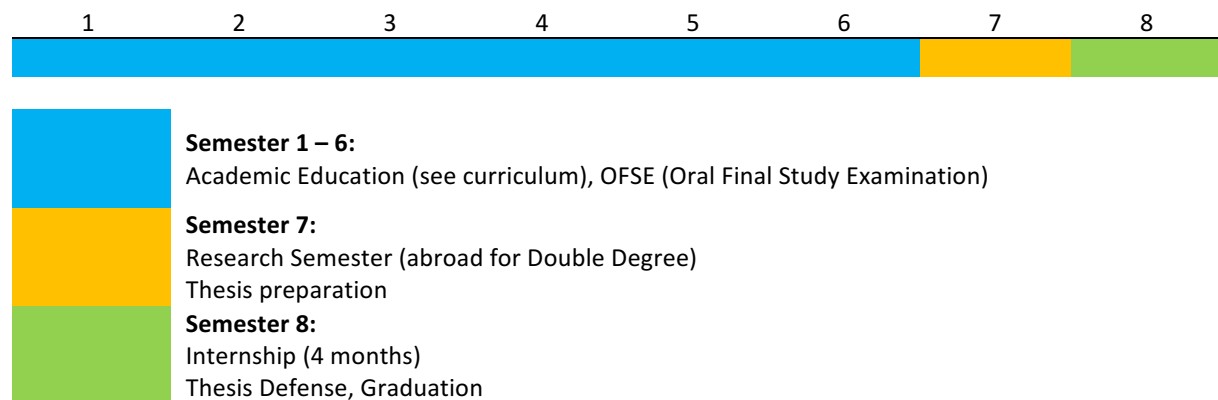


## 4 Curriculum: Electrical Engineering - ELE (Industrial Electronics)

### 4.1 General Data

- 1 Duration of Study (S-1) : 4 years
- 2 Academic Year : 2 Semesters  
Odd Semester: 1 July to 31 December  
Even Semester: 1 January to 30 June
- 3 Academic weeks / Semester : 16 (14 academics and 2 for examinations)  
Semester Credit Units (SKS) : 1 SKS (preparation, lecture, exercises)
- 4 Numbers of SKS per Semester : max 24 (academics)  
Total SKS for S-1 study : 144 – 160 SKS
- 5 Duration of one lecture : 50 Minutes
- 6 Number of Students per Subject : min. 12 Students
- 7 File Name : 04-Cur-ELE-08-06-1.docx
- 8 Modification : Subject to Changes / 2017/07-15/PP

### 4.2 Structure of Study



### 4.3 Scores

Grade Letter	Grade Wording	IULI	Indonesian Grade Points (GP)	Germany Grade Point	Grade Description	Student Representation
A	Excellent	86 - 100	4	1	Outstanding performance	10%
B	Good	71 - 85	3.0 - 3.9	2	Performance is considerably higher than the average requirements	25%
C	Satisfactory	56 - 70	2.0 - 2.9	3	Performance meets the average requirements	30%
D	Poor	46 - 55	1.0 – 1.9	4	Performance is poor and likely to lead to failure	25%
F	Fail	< 45	0	5	Performance does not meet the minimum criteria. Considerable further work is required	10%

#### 4.4 Curriculum (in SKS)

<b>University Compulsory Subjects</b>
<b>Faculty Compulsory Subjects</b>
<b>Department Compulsory Subjects</b>
<b>Elective Subjects</b>

### 04 - Electrical Engineering - ELE

University Compulsory Subjects		Semester									
			1	2	3	4	5	6	7	8	Total
1	English	ENGL	2	2	2	2	1	1			10
2	Computer Network & IT Security	CNIS	2								2
3	Applied Statistics	MATH		2							2
4	Research Methodology	RESM		2							2
5	Environment Sciences	ENVI			2						2
6	Civics	CIVI				2					2
7	Ethics and Religious Philosophy	ETRP					2				2
8	Innovation & Product Development	PROD					2				2
9	E-Commerce	ECOM						2			2
10	Indonesian Language & Culture	IDLC						2			2
11	Pancasila	PANC						2			2
12	Oral Final Study Examination (OFSE)	OFSE						0			0
13	Research Semester	RESS							6		6
14	Internship / Project	INSP								3	3
15	Thesis / Thesis Defence	THES								6	6
<b>Total</b>			<b>4</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>45</b>

Engineering Faculty Compulsory Subjects			Semester								
			1	2	3	4	5	6	7	8	Σ
1	Introduction to Engineering	IENG	1								1
2	Chemistry	CHEM	2								2
3	Material Science	MATS	2								2
4	Engineering Mathematics 1,2	MATH	3	3							6
5	Physics & Laboratory 1,2	PHYS	3	3							6
6	Algorithm, Programming 1, 2	PROG	3	3							6
7	Electrical Engineering & Laboratory 1, 2	ELEE	3	3							6
8	Engineering Drawing / CAD 1*	ENDR	0								0
9	Statics and Mechanics of Materials*	MECH		0							0
10	Manufacturing Process*	MFPR			0						0
11	Applied Mathematics	MATH			3						3
12	Metrology and Quality Control	MEQC			2						2
13	Computer Aided Design – CAD 2 **	CADD			0						0
14	Engineering Economy***	EECO				2					2
15	System Design 1, 2***	SYSD				3	3				6
16	Engineering Management ***	EMGT					2				2
<b>Total</b>			<b>17</b>	<b>12</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>44</b>

Exclude: \*/\*\*COS, \*\*ELE, \*\*\*INE

D-Department Compulsory Subjects			Semester								
			1	2	3	4	5	6	7	8	Σ
1	Electronic Devices and Circuits	ECED			2	2					4
2	Telecommunication	TCOM					2				2
3	Electric and Magnetic Fields	EAMF			3						3
4	Electrical Safety & Protection	ESAP			2						2
5	Sensor and Instrumentation Technique	SENS				3					3
6	Microcontroller Systems	ECEC				3					3
7	Control Techniques	CTRL				3					3
8	Electric Power Systems & Transmission.	EPST				3					3
9	Electrical Energy Conversion & Utilization.	EECU				2					2
10	Signals and Systems	SSYS				2	2				4
11	Power Electronics	ECEP					3				3
12	Radio Frequency Circuit & Antennas	RFCA					2				2
13	Digital Signal Processing	DSPR						3			3
14	Electric Machines & Drives	ELEC						3			3
15	Elective Subjects	ELEC		4	4	2	4	4			18
	Department		0	4	11	20	13	10	0	0	58
	Faculty		17	12	5	0	5	5	0	0	44
	University		4	6	4	4	5	7	6	9	45
	<b>Total</b>		<b>21</b>	<b>22</b>	<b>20</b>	<b>24</b>	<b>23</b>	<b>22</b>	<b>6</b>	<b>9</b>	<b>147</b>

Elective Subjects			1	2	3	4	5	6	7	8	
1	German Language 1 *)	GERM	2	2	2	2	2	2			12
2	German Language 2 **)	GERM	2	2							4
3	Mandarin	MAND	2	2	2	2	2		2		12
4	Business Arabic	ARAB	2	2	2	2	2		2		12
5	Electrical Subjects	EMTE	0	4	4	2	4	4	0		18