

## 7 Curriculum Mechatronics Engineering - MTE

### 7.1 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 : 07-Cur-MTE-08-06.docx
- 8 Modification : Subject to Changes / 2017/07-15/08-28/PP

### 7.2 Structure of Study

1	2	3	4	5	6	7	8
	<b>Semester 1 – 6:</b> Academic Education (see curriculum), OFSE (Oral Final Study Examination)						
	<b>Semester 7:</b> Research Semester (abroad for Double Degree) Thesis preparation						
	<b>Semester 8:</b> Internship (4 months) Thesis Defense, Graduation						

### 7.3 Scores

Grade Letter	Grade Wording	IULI	Indonesian Grade Points (GP)	Germany Grade Point	Grade Description	Student Representati
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%

## 7.4 Curriculum (in SKS)

University Compulsory Subjects
Faculty Compulsory Subjects
Department Compulsory Subjects
Elective Subjects

### 07 - Mechatronics Engineering - MTE

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	3								3
9	Statics and Mechanics of Materials*	MECH		4							4
10	Manufacturing Process*	MFPR			2						2

11	Applied Mathematics	MATH			3										3
12	Metrology and Quality Control	MEQC			2										2
13	Computer Aided Design – CAD 2 **	CADD			3										3
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>20</b>	<b>16</b>	<b>10</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>56</b>	

MTE - Department Compulsory			Semester												
			1	2	3	4	5	6	7	8	Σ				
1	Machine Elements	MELM			3										3
2	Thermo-Fluid Science 1, 2	THFL			2	2									4
3	Kinematics and Dynamics of Machines	MECH				3									3
4	Electronic Devices and Circuits	ECED			2	2									4
5	Sensor and Instrument. Techn.	SENS				3									3
6	Microcontroller Systems	ECEC				3									3
7	Control Techniques	CTRL				3									3
8	Signals and Systems	SSYS				2	2								4
9	Digital Signal Processing	DSPR							3						3
10	Telecommunication	TCOM						2							2
11	Power Electronics	ECEP						3							3
12	Pneumatics and Hydraulics	PNEM							3						3
13	Electric Machines & Drives	ELEC							3						3
14	Robotics and Automaton 1	ROB1						2							2
14	Robotics and Automaton 2	ROB2							2						2
16	Elective Subjects	ELEC			2		2								4
Department			0	0	9	18	11	11	0	0	0	0	0	0	49
Faculty			20	16	10	0	5	5	0	0	0	0	0	0	56
University			4	6	4	4	5	7	6	9					45
Total			24	22	23	22	21	23	6	9					150

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	Mechatronics Subjects	EMTE	0	0	2	0	2	0	0	0	4

\*) Mandatory for Internship in Germany

\*\*) Pre-Semester Course (Study at TU Ilmenau / Germany)