

4 Curriculum Mechatronics Engineering - MTE

4.1 Data

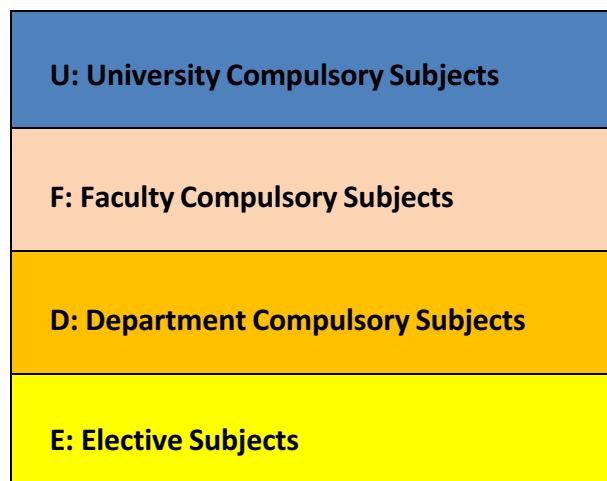
4.1.1 Data

Duration	:	4 years
Number of Semesters	:	8 (6 academics, one research and one Internship)
Academic Year	:	2 Semesters
		Odd Semester: 1 July to 31 December
		Even Semester: 1 January to 30 June
Number of weeks per semester	:	16 (14 academics and 2 for examinations)
Numbers in the curriculum	:	SKS (satuan kredit semester / semester credit units)
Number of SKS per Semester	:	max 24 (academics)
Duration of one lecture	:	50 Minutes
Elective Subjects	:	min 15 Students per course
Engineering courses (minimum)	:	75%
Non Engineering (maximum)	:	25%
File Name	:	Cur-MTE-14
Modification	:	Subject to Changes
		2017/31-05/10-06/21-06/PP

4.2 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%

4.3 Program Structure



4.3.1 U-University Compulsory Subjects

	Subjects	Abr.	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	E-Commerce	ECOM						2			2
4	Environment Sciences	ENVI			2						2
5	Innovation & Product Development	PROD					2				2
6	Applied Statistics	MATH		2							2
7	Research Methodology	RESM		2							2
8	Research Semester	RESS							6		6
9	Ethics and Religious Philosophy	ETRP					2				2
10	Civics	CIVI				2					2
11	Indonesian Language & Culture	IDLC						2			2
12	Pancasila	PANC						2			2
13	Oral Final Study Examination (OFSE)	OFSE						0			0
14	Elective : Internship / Project	INSP								3	3
15	Thesis / Thesis Defense	THES								6	6
	Total		4	6	4	4	5	7	6	9	45
								30			

4.3.2 F-Faculty Compulsory Subjects (Computer Science is not included)

	Subjects	Abr.	1	2	3	4	5	6	7	8	Total
1	Applied Chemistry & Material Science	CHEM	3								3
2	Engineering Mathematics 1, 2	MATH	3	3							6
3	Physics & Laboratory 1, 2	PHYS	4	4							8
4	Algorithm, Programming 1, 2	PROG	3	3							6
5	Engineering Drawing	ENDR	3								3
6	Manufacturing Process	MFPR			2						2
7	Applied Mathematics	MATH			3						3
8	Engineering Economy	EECO					2				2
9	Engineering Management	EMGT						2			2
10	Electrical Engineering & Laboratory 1, 2	ELEE	3	3							6
11	Statics and Mechanics of Materials	MECH		4							4
12	Metrology and Quality Control	MEQC			2						2
	Total		19	17	7	0	2	2	0	0	47

4.3.3 D-Department Compulsory Subjects

No.	Subjects	Abr.	Semesters						Total	AUE	AVE	ELE	MEE	INE
			1	2	3	4	5	6						
1	Introduction to Mechatronics	IMTE	1						1					
2	Manufacturing Process	MFGS			2				2	X		X	X	X
3	Machine Elements	MELM			3				3	X	X		X	X
4	Thermo-Fluid Science	THFL			2	2			4	X	X		X	
5	Kinematics and Dynamics of	MECH				3			3	X	X		X	
6	Electronic Devices and Circuits	ECED			2	2			4			X		
7	Sensor and Instrumentation	SENS			3				3			X		
8	Microcontroller Systems	ECEC				3			3			X		
9	Control Techniques	CTRL				3			3	X		X	X	
10	Signals and Systems	SSYS				3			3			X		
11	Digital Signal Processing	DSPR					3		3			X		
12	Introduction to Telecom.	TCOM					2		2			X		
13	Power Electronics	ECEP					3		3			X		
14	Pneumatics and Hydraulics	PNEM						3	3	X	X		X	
15	Electric Machines & Drives	ELEC						3	3			X		
16	Mechatronics Systems Design	MSDG					3	3	6					
17	Elective Subjects (*)	ELEC				2	4	4	10					
	Department (Semester 1-6)		1	0	12	18	15	13	63					
	Faculty (Semester 1-6_		19	17	7	0	2	2	47					
	University (Semester 1-6)		4	6	4	4	5	7	30					
	Total (Semester 1-6)		24	23	23	22	23	22	137					
	Total (Semester 1-8)								152					

4.3.4 Electives (*)

No.	Subjects	Abr.	Semesters								Total	
			1	2	3	4	5	6	7	8		
1	German Language 1 *)	GERM	2	2	2	2	2	2	2			12
2	German Language 2 **)	GERM	2	2								4
3	Mandarin	MAND	2	2	2	2	2	2	2			12
4	Business Arabic	ARAB	2	2	2	2	2	2	2			12
5	Mechatronics Subjects	EMTE				2	4	4				10

*) Mandatory for Internship in Germany

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

5 Modifications:

Date	Level	Old	Sem	New	Sem	By
2017-05-30	University	Fundamentals of Computer Technology	1	Computer Network and Computer Security	1	PP
2017-05-30	University	Statistics and Probability	2	Applied Statistics	2	PP
2017-05-31	Faculty	Technical Drawing	1	Engineering Drawing	1	PP
2017-05-31	Dep. to Faculty	Industrial Electronics and Laboratory	1,2	Electrical Engineering and Laboratory 1, 2	1,2	PP
2017-05-31	Dep. to Faculty	Statics and Mechanics of Materials	2	Statics and Mechanics of Materials	2	Pp
2017-05-31	Faculty	Calculus and Linear Algebra	1,2	Engineering Mathematics 1 and 2	1,2	PP
2017-05-31	Department	Without joint departments with same subjects		Subjects		PP
2017-06-01	Faculty	Engineering Drawing chang of code	1	New code ENDR	1	Pp
2017-06-07	University	Pancasila	2	Change to Semester 6	6	PP
2017-06-07	University	Research Methodology	6	Change to Semester 2	2	PP
2017-06-13	Faculty	Introduction to Measurement	2	Metrology and Quality Control	2	PP
2017-06-18	Elective	Elective 6 SKS	5	Electives 4 SKS	5	PP
2017-06-21	Departmeny			Department change layout 4.3.3	1-8	PP