

4 Curriculum Mechatronics Engineering - MTE

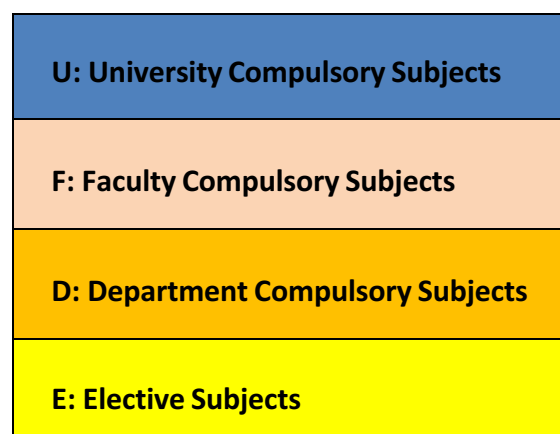
4.1 Data

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)
Number of SKS per Semester	:	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-9
Modification	:	Subject to Changes
		31-05-2017/10-06-2017/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 University Compulsory Subjects – U (in SKS)

	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 Faculty Compulsory Subjects – F (in SKS); (Not included: Computer Science)

	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	Elective in Engineering Science	EESC				2					2
9	Engineering Economy	EECO					2				2
10	Engineering Management	EMGT						2			2
11	Electrical Engineering & Laboratory 1, 2	ELEE	3	3							6
12	Statics and Mechanics of Materials	MECH		4							4
	Total		19	17	5	2	2	2	0	0	47
								47			

4.3.3 Department Compulsory Subjects – D (in SKS)

No.	Subjects	Abr.	Common Subjects					Semesters						Total	
			AUE	AVE	ELE	MEE	INE	1	2	3	4	5	6		
1	Introduction to Mechatronics	IMTE						1							1
2	Manufacturing Process	MFGS	X		X	X	X			2					2
3	Machine Elements	MELM	X	X		X	X			3					3
4	Thermo-Fluid Science	THFL	X	X		X				2	2				4
5	Kinematics and Dynamics of	MECH	X	X		X					3				3
6	Electronic Devices and Circuits	ECED			X					2	2				3
7	Metrology and Quality Contr.	MEQC			X		X			2					2
8	Sensor and Instrumentation	SENS			X					3					3
9	Microcontroller Systems	ECEC			X						3				3
10	Control Techniques	CTRL	X		X	X					3				3
11	Signals and Systems	SSYS			X						3				4
12	Digital Signal Processing	DSPR			X							3			3
13	Introduction to Telecom.	TCOM			X							2			2
14	Power Electronics	ECEP			X							3			3
15	Pneumatics and Hydraulics	PNEM	X	X		X								3	4
16	Electric Machines & Drives	ELEC			X									3	2
17	Mechatronics Systems Design	MSDG										3	3		6
18	Elective Subjects (*)	ELEC										6	6		12
	Total								1	0	14	16	17	15	63
	Total Semester 1-6								24	23	23	22	24	24	140
	Total Semester 1-8														155

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				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						6	6			12

*) 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	3	Metrology and Quality Control	3	PP