

industrial training with industries related to the respective cluster they had chosen. Consequently, Mechanical Engineering students can experience the working world while they are still studying, and will be trained with specific skills according to the current needs of the industry. This dyna:Mech initiative provides industrial benefit through reducing the period taken significantly to train and prepare the young engineers.

This collaboration between the University and industry will help students in getting an early chance to identify employment opportunities, simultaneously providing industries with the opportunity to select excellent students before they even graduate. The School of Mechanical Engineering at UTM will stop at nothing to ensure its program is always the best in Malaysia to produce outstanding engineers in the country.

GRADUATION CHECKLIST

To graduate, students must pass all the stated courses in this checklist. It is the responsibility of the students to ensure that all courses are taken and passed. Students who do not complete any of the course are not allowed to graduate.

NO	COURSE CODE	COURSE NAME	CREDIT EARNED (JKD)	CREDIT COUNTED (JKK)	TICK (!) IF PASSED
MECHANICAL ENGINEERING COURSES					
1	SEMM 1013	Programming for Engineers	3	3	
2	SEMM 1113	Mechanics of Solids I	3	3	
3	SEMM 1203	Statics	3	3	
4	SEMM 1213	Dynamics	3	3	
5	SEMM 1503	Engineering Drawing	3	3	
6	SEMM 1513	Introduction to Design	3	3	
7	SEMM 1911	Experimental Methods	1	1	
8	SEMM 1921	Introduction to Mechanical Engineering	1	1	
9	SEMM 2123	Mechanics of Solids II	3	3	
10	SEMM 2223	Mechanics of Machines & Vibration	3	3	
11	SEMM 2313	Mechanics of Fluids I	3	3	
12	SEMM 2323	Mechanics of Fluids II	3	3	
13	SEMM 2413	Thermodynamics	3	3	
14	SEMM 2423	Applied Thermodynamics	3	3	
15	SEMM 2613	Materials Science	3	3	
16	SEMM 2713	Manufacturing Processes	3	3	
17	SEMM 2921	Laboratory I	1	1	
18	SEMM 3023	Applied Numerical Methods	3	3	
19	SEMM 3033	Finite Element Methods	3	3	
20	SEMM 3233	Control Engineering	3	3	
21	SEMM 3242	Instrumentation	2	2	

22	SEMM 3253	Mechatronics	3	3	
23	SEMM 3443	Heat Transfer	3	3	
24	SEMM 3523	Component Design	3	3	
25	SEMM 3813	Industrial Engineering	3	3	
26	SEMM 3823	Engineering Management, Safety & Economics	3	3	
27	SEMM 3915	Industrial Training	5	HL	
28	SEMM 3931	Laboratory II	1	1	
29	SEMM 3941	Laboratory III	1	1	
30	SEMM 4533	System Design	3	3	
31	SEMM 4902	Engineering Professional Practice	2	2	
32	SEMM 4912	Undergraduate Project I	2	2	
33	SEMM 4924	Undergraduate Project II	4	4	
34	SEMX 4xx3	Elective I	3	3	
35	SEMX 4xx3	Elective II	3	3	
36	SEMX 4xx3	Elective III	3	3	
37	SEMX 4xx3	Elective IV	3	3	
TOTAL CREDIT FOR MECHANICAL ENGINEERING COURSES (A)			101	96	
ELECTRICAL COURSES (School of Electrical Engineering)					
1	SEEU 1002	Electrical Technology	2	2	
2	SEEU 2012	Electronics	2	2	
TOTAL CREDIT FOR ELECTRICAL COURSES (B)			4	4	
MATHEMATICS COURSES (Faculty of Science)					
1	SSCE 1693	Engineering Mathematics I	3	3	
2	SSCE 1793	Differential Equations	3	3	
3	SSCE 1993	Engineering Mathematics II	3	3	
4	SSCE 2193	Engineering Statistics	3	3	
TOTAL CREDIT FOR MATHEMATICS COURSES (C)			12	12	
UNIVERSITY GENERAL COURSES					
CLUSTER 1: APPRECIATION OF PHILOSOPHY, VALUE & HISTORY					
1	UHS 1012	Islamic & Asian Civilization (for local students only)	2	2	
	UHMS 1022	Malaysian Studies 3 (for international students only)			
2	UHMS 1172	Malaysian Dynamics (for local students only)	2	2	
	UHLM 1012	Malay Language for Communication 2 (for international students only)			
CLUSTER 2: GENERIC SKILLS					
1	UHMT 1012	Graduate Success Attributes	2	2	

2	UHMT 2012	Leadership	2	2	
3.	UHMS 2022	Critical and Creative Thinking	2	2	
4.	UHMS 2032	The Human side of Knowledge Management	2	2	
5.	UHMS 2042	Development and Global Issues	2	2	
6.	UHMT 2042	Guidance & Counselling	2	2	
7.	UHMT 2062	Psychology of Adjustment	2	2	
8.	UBSS 2072	Fundamentals of Intellectual Property Law	2	2	
9.	UBSS 2082	Law for Entrepreneurs	2	2	
10.	UBSS 2092	Entrepreneurship and Enterprise Development	2	2	
11.	UBSS 2102	Social Entrepreneurship	2	2	
12.	UHMS 2112	Engineering Communication	2	2	
13.	UHMS 2122	Human Communication	2	2	
14.	UHMT 2132	Professional Ethics	2	2	
15.	UMJT 2142	Professional Ethics, Safety and Health (Ningen Ryoku)	2	2	
CLUSTER 3: KNOWLEDGE EXPANSION					
1.	UHIT 2302	Science and Technology Thinking	2	2	
2.	UHIT 1022	Science, Technology and Mankind	2	2	
3.	UHII 2012	Al-Qur'an and Human Civilization	2	2	
4.	UHIT 2032	Life Institutions and Sustainable Development	2	2	
5.	UHIZ 2042	Future Studies	2	2	
6.	UHIT 2052	Family Law	2	2	
7.	UHIZ 2062	World Science	2	2	
8.	UHS 2072	Sustainable Economy	2	2	
9.	UHS 2082	Practice and Concept of Halal Management	2	2	
10.	UHII 2092	Philosophy of Islamic Art	2	2	
11.	UHII 2102	Islam and Health	2	2	
12.	UHII 2132	Islamic Entrepreneurship	2	2	
13.	UETS 2142	Sustainable Energy	2	2	
CLUSTER 4: CO-CURRICULUM & SERVICE LEARNING					
1	UKQF 2xx2	Co-curriculum & Service Learning Elective	2	2	
2	UKQT 3001	Extra Curricular Experiential Learning	1	1	
CLUSTER 5: LANGUAGE SKILLS					
1	UHLB 1112	English Communication Skills	2	2	
2	UHLB 2122	Academic Communication Skills	2	2	

3	UHLB 3132	Professional Communication Skills	2	2	
4	UHLB 1032	Introductory Academic English	2	2	
5	UHLB 1042	Intermediate Academic English	2	2	
6	UHLA 1112	Arabic Language	2	2	
7	UHLJ 1112	Japanese Language 1	2	2	
8	UHLC 1112	Mandarin Language I	2	2	
9	UHLE 1112	French Language	2	2	
10	UHLN 1112	Persian Language	2	2	
11	UHLJ 1122	Japanese Language for Communication I	2	2	
12	UHLM 1112	Malay Language for Communication	2	2	
CLUSTER 6: ENTREPRENEURSHIP					
1	UBSS 1032	Introduction to Entrepreneurship	2	2	
TOTAL CREDIT FOR UNIVERSITY GENERAL COURSES (D)			23	23	
TOTAL CREDIT TO GRADUATE (A + B + C + D)			140	135	
Note: # Choose one elective either from Cluster 2 (Generic Skills) or Cluster 3 (Knowledge Expansion) for UxxX 2xx2					
OTHER COMPULSORY COURSES					
PROFESSIONAL SKILLS CERTIFICATE (PSC)					
1	GLL 1001	How To Get Yourself Employed			
2	GLL 1029	ISO 9001:2008 Quality Management System Requirement			
3	GLL 1040	Occupational Safety, Health and Environment			
4	GLL 1041	How to Manage Your Personal Finance			
5	Test of English Communication Skills (TECS)				
	TECS 1001	Oral Interaction			
	TECS 1002	Writing			