

PROGRAMME : BACHELOR OF AEROSPACE ENGINEERING WITH HONOURS
TYPE : FULL TIME
BATCH : 202 AND ABOVE (NEW UNICORE + NEW CURRICULUM STRUCTURE)

SUMMARY

TYPE OF COURSES	CREDIT HOURS	ELEMENT
A. University Required Course (UNICORE)	20	UNGS (1201,1301,2290,2380), Language (LEED 1301, LMBD – not counted, LQAD 1003, 2003, TQTD 1002, 2002), Co-Curricular (CCUB)
B. Kulliyah Required Courses (KRC)	14	MATHS (4 courses x 3 Crs each) Technology Entrepreneurship (MECH 4211) (2 Crs)
C. Engineering Core Courses	95	
D. Engineering Elective Courses	4	
E. Free Elective	6	
TOTAL	139	

A. UNIVERSITY REQUIRED COURSES (UNICORE)

No .	Course Code	Course Title	Credit Hours	Grading Remarks*	Pre-Requisite	Requirement
1.	CCUB 1061	Usrah 1	0.5	P/F (CT)		
2.	CCUB 1062	Usrah 2	0.5	P/F (CT)	CCUB 1061	
3.	CCUB 2163	Usrah in Action 1 (SD:Community profiling)	1	P/F	CCUB 1062	Year 2
4.	CCUB 3164	Usrah in Action 2	1	P/F	CCUB 2163	Year 3
5.	LEED 1301	English for Academic Writing	3	Normal Grading		Year 1
6.	*LMBD 1131	Bahasa Melayu 1 (Non Malay speakers)	1	Normal Grading		Year 1 (Only for non Malay speaker)
7.	*LMBD 1132	Bahasa Melayu 2 (Non Malay Speakers)	1	Normal Grading	LMBD 1131	Year 2 (Only for non Malay speaker)
8	TQTD 1002	Tilawah Al- Quran 1	0.5	P/F		Year 1
9.	TQTD 2002	Tilawah Al Quran 2	0.5	P/F	TQTD 1002	Year 2
10.	UNGS 1201	Sustainable Development : Issues, Policies and Practices	2	Normal Grading		Year 1
11	UNGS 1301	Basic Philosophy and Islamic Worldview	3	Normal Grading		Year 1
12	UNGS 2290	Knowledge And Civilization In Islam	2	Normal Grading	UNGS 1301	

13	UNGS 2380	Ethic and Fiqh of Contemporary issues	3	Normal Grading	UNGS 2290	
14	CCLM 2051	Leadership	0.5	Normal Grading		
15	CCFM 2061	Family Management	0.5	Normal Grading		
16	CCSS 1010/2010/3010	Skill 1	0.5	P/F		
17	CCSS 1010/2010/3010	Skill 2	0.5	P/F		
18	LQAD 1003	Arabic for <i>Ibadah</i> 1	0.5	Normal Grading		Year 1
19	LQAD 2003	Arabic for <i>Ibadah</i> 2	0.5	Normal Grading	LQAD 1003	Year 2
TOTAL : 20						

* Credit Hours Not counted

B. KULLIYAH REQUIRED COURSE (KRC)

KRC						
No	Course Code	Course Title	Cr Hrs	Grading Remarks	Pre Requisite	Cross Listed Code
1	MATH 1310	Engineering Mathematics 1	3	Normal Grading		
2	MATH 1321	Engineering Mathematics 2	3	Normal Grading	MATH 1310	
3	MATH 2311	Differential Equations	3	Normal Grading	MATH 1321	
4	MATH 2330	Computational Methods and Statistics	3	Normal Grading	MATH 2311	
5	MECH 4211	Technology Entrepreneurship	2	Normal Grading	MECH 4300 MFGA 3309	
TOTAL : 14						

C.1 ENGINEERING CORE COURSES (LEVEL 1)

LEVEL 1						
No	Course Code	Course Title	Cr Hrs	Grading Remarks	Pre Requisite	Cross Listed Code
1	MECH 1301	Statics	3	Normal Grading		
2	EECE 1316	Fundamentals of Electrical and Electronics	3	Normal Grading		
3	MFGA 1201	Computer Aided Drawing	2	Normal Grading		
4	AERO 1322	Thermal Sciences	3	Normal Grading		
5	AERO 1121	Introduction to Aerospace Engineering	1	Normal Grading		
6	EECE 1102	Electrical Engineering Lab 1	1	Normal Grading	EECE 1316	
7	EECE 1317	Engineering Programming	3	Normal Grading		
8	MFGA 1141	Introduction to Workshop	1	Normal Grading	MFGA 1201	
TOTAL : 17						

C.2 ENGINEERING CORE COURSES (LEVEL 2)

LEVEL 2						
No	Course Code	Course Title	Cr Hrs	Grading Remarks	Pre Requisite	Cross Listed Code
1	AERO 2302	Dynamics	3	Normal Grading	MECH 1301, MATH 1301	
2	MECH 2340	Fluid Mechanics	3	Normal Grading	AERO 1322	
3	MECH 2241	Instrumentation and Measurements	2	Normal Grading	EECE 1316	
4	AERO 2320	Aerospace Materials and Manufacturing Processes	3	Normal Grading		
5	MECH 2342	Mechanics of Materials	3	Normal Grading	MECH 1301	
6	AERO 2343	Control Systems	3	Normal Grading	MATH 2311	
7	AERO 2128	Aerospace Engineering Lab 1	1	Normal Grading	AERO 1322 MECH 2340 MECH 2342	
8	AERO 2322	Aerodynamics 1	3	Normal Grading	MECH 2340	
9	AERO 2326	Space Mechanics	3	Normal Grading	AERO 2302	
TOTAL : 24						

C.3 ENGINEERING CORE COURSES (LEVEL 3)

LEVEL 3						
No	Course Code	Course Title	Cr Hrs	Grading Remarks	Pre Requisite	Cross Listed Code
1	AERO 3321	Aircraft Structures 1	3	Normal Grading	MECH 2342	
2	AERO 3220	Flight Mechanics	2	Normal Grading	AERO 2322	
3	AERO 3326	Aerodynamics 2	3	Normal Grading	AERO 2322	
4	MECH 3342	Computational Mechanics	3	Normal Grading	MATH 2330	
5	AERO 3128	Aerospace Engineering Lab 2	1	Normal Grading	AERO 2322, AERO 2320, AERO 2343	
6	MFGA 2305	Project and Operations Management	3	Normal Grading	MATH 1321	
7	AERO 3325	Aircraft Structures 2	3	Normal Grading	AERO 3321	
8	AERO 3324	Aerospace Propulsion	3	Normal Grading	AERO 2322	
9	AERO 3327	Aerospace Vehicle Design	3	Normal Grading	AERO 3220	
10	MECH 3241	Introduction to IoT and Applications	2	Normal Grading	MECH 2241, EECE 1317	
11	MECH 3140	Engineering Design Ideation	1	Normal Grading	3 rd Year	
12	MFGA 3309	Engineering Economics & Management	3	Normal Grading	MFGA 2305	
13	AERO 3500	Engineering Industrial Training	5	Pass/Fail	90 Credit Hrs	
TOTAL : 35						

C.4 ENGINEERING CORE COURSES (LEVEL 4)

LEVEL 4						
No	Course Code	Course Title	Cr Hrs	Grading Remarks	Pre Requisite	Cross Listed Code
1	MECH 4300	Integrated Design Project	3	Normal Grading	MECH 3140, MFGA 2305	
2	AERO 4342	Spacecraft Dynamics and Control	3	Normal Grading	AERO 2326 AERO 2343	
3	AERO 4122	Aerospace Engineering Lab 3	1	Normal Grading	AERO 3324 AERO 3325	
4	AERO 4200	Final Year Project 1	2	Normal Grading	4 th Year	
5	AERO 4322	Flight Dynamics and Control	3	Normal Grading	AERO 2343, AERO 3220	
6	AERO 4400	Final Year Project 2	4	Normal Grading	AERO 4200	
7	GENE 4301	Engineering Ethics, Safety and Environment	3	Normal Grading	UNGS 2380	
TOTAL : 19						

D. ENGINEERING ELECTIVES COURSES (CHOOSE 2 COURSES OUT OF 10)

LEVEL 4						
No	Course Code	Course Title	Cr Hrs	Grading Remarks	Pre Requisite	Cross Listed Code
1	AERO 4260	Helicopter Aerodynamics	2	Normal Grading	AERO 3326	
2	AERO 4262	Rocket Propulsion	2	Normal Grading	AERO 3324	
3	AERO 4263	Aeroelasticity	2	Normal Grading	AERO 3325	
4	AERO 4287	Composite Structures	2	Normal Grading	MECH 2342	
5	AERO 4265	Aerospace Composites Technology	2	Normal Grading	AERO 2320	
6	AERO 4270	Aerospace Manufacturing Technology	2	Normal Grading	AERO 2320	
7	AERO 4264	Spacecraft Systems Engineering	2	Normal Grading	AERO 2326	
8	AERO 4286	Nondestructive Evaluation of Structures	2	Normal Grading		
9	AERO 4268	Special Topics in Aerospace Engineering I	2	Normal Grading		
10	AERO 4269	Special Topics in Aerospace Engineering II	2	Normal Grading		
			TOTAL : 4			

Undergraduate Grading Remarks

Grading Remarks (*)

Type/Grade	Explanation	Hours Credited	Hours Earned
Normal	Normal Grading(A,B,C,D, etc)	Yes	Yes
PA/FA	Pass / Fail Course or for practical training	Yes	Yes
AU	Course Audited	No	No
PR	Passed Resit	Yes	Yes
FR	Failed Resit	Yes	No
EX	Exemption	Yes	Yes
Y	Barred from Final Exam	Yes	No
I	Incomplete	No	No