

Course Information					Programme Outcomes										
No.	Course Code	Course Name	Credit hours	Semester	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO9	PO10	PO11
1	AERO 1121	Introduction to Aerospace Engineering	1	1	✓	✓									
2	MECH 1301	Statics	3	1	✓	✓									
3	MATH 1310	Engineering Mathematics 1	3	1	✓	✓									
4	EECE 1316	Fundamentals of Electrical and Electronics	3	1	✓	✓									
5	MFGA 1201	Computer Aided Drawing	2	1	✓	✓	✓								
6	AERO 1322	Thermal Science	3	2	✓	✓									
7	EECE 1102	Electrical Engineering Lab 1	1	2	✓			✓	✓						
8	MATH 1321	Engineering Mathematics 2	3	2	✓	✓									
9	EECE 1317	Engineering Programming	3	2		✓			✓						
10	MFGA 1141	Introduction to Workshop	1	2	✓	✓					✓				
11	AERO 2302	Dynamics	3	3	✓	✓									
12	AERO 2320	Aerospace Materials and Manufacturing Processes	3	3	✓	✓	✓								
13	MECH 2342	Mechanics of Materials	3	3	✓	✓									
14	MECH 2340	Fluid Mechanics	3	3	✓	✓	✓								

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15	MECH 2241	Instrumentation and Measurements	2	3	✓	✓	✓								
16	MATH 2311	Differential Equations	3	3	✓	✓									
17	AERO 2128	Aerospace Engineering Lab 1	1	4				✓	✓			✓	✓		
18	AERO 2322	Aerodynamics 1	3	4	✓	✓			✓						
19	AERO 2343	Control Systems	3	4	✓	✓	✓								
20	AERO 2326	Space Mechanics	3	4	✓	✓			✓						
21	MATH 2330	Computational Methods and Statistics	3	4	✓	✓									
22	AERO 3321	Aircraft Structures 1	3	5	✓	✓									
23	AERO 3128	Aerospace Engineering Lab 2	1	5				✓	✓			✓	✓		
24	AERO 3220	Flight Mechanics	2	5	✓	✓									
25	AERO 3326	Aerodynamics 2	3	5	✓	✓			✓						
26	MECH 3342	Computational Mechanics	3	5		✓		✓	✓						
27	MFGA 2305	Project and Operations Management	3	5	✓	✓								✓	
28	AERO 3325	Aircraft Structures 2	3	6	✓	✓	✓								
29	AERO 3327	Aerospace Vehicle Design	3	6	✓	✓	✓		✓						
30	AERO 3324	Aerospace Propulsion	3	6	✓	✓	✓								
31	MECH 3242	IoT and Applications	2	6	✓	✓	✓		✓						

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No.	Course Code	Course Name	Credit hours	Semester	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO9	PO10	PO11
32	MECH 3140	Engineering Design Ideation	1	6		✓				✓			✓		
33	MFGA 3309	Engineering Economics & Management	3	6	✓	✓								✓	
34	AERO 3500	Engineering Industrial Training	5	Short Sem							✓	✓	✓		
35	AERO 4122	Aerospace Engineering Lab 3	1	7				✓	✓			✓	✓		
36	AERO 4342	Spacecraft Dynamics and Control	3	7	✓	✓									
37	AERO 4200	Final Year Project 1	2	7	✓	✓		✓					✓		
38	AERO 43XX	Technical Elective 1	2	7	✓	✓									
39	MECH 4300	Integrated Design Project	3	7		✓	✓			✓		✓	✓	✓	
40	XXXX XXXX	Free Elective 1	3	7											
41	AERO 4400	Final Year Project 2	4	8	✓	✓		✓					✓		✓
42	XXXX XXXX	Free Elective 2	3	8											
43	AERO 4XXX	Technical Elective 2	2	8	✓	✓									
44	AERO 4322	Flight Dynamics and Control	3	8	✓	✓		✓	✓						
45	MECH 4211	Technology Entrepreneurship	2	8							✓	✓		✓	
46	GENE 4301	Engineering Ethics, Safety and Environment	3	8						✓	✓				✓

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No.	Course Code	Course Name	Credit hours	Semester	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO9	PO10	PO11
Aerospace Elective Courses															
1	AERO 4260	Helicopter Aerodynamics	2		✓	✓			✓						
2	AERO 4262	Rocket Propulsion	2		✓	✓			✓						
3	AERO 4263	Aeroelasticity	2		✓	✓									
4	AERO 4287	Composite Structures	2		✓	✓		✓							
5	AERO 4265	Aerospace Composites Technology	2		✓	✓		✓							
6	AERO 4270	Aerospace Manufacturing Technology	2		✓	✓		✓							
7	AERO 4264	Spacecraft Systems Engineering	2		✓	✓			✓						
8	AERO 4286	Nondestructive Evaluation of Structures	2		✓	✓		✓							
BAERO Total Credit Hours = 139		Engineering Credits	119	No of courses	34	37	10	8	12	3	4	6	8	4	2
		UniCORE Credits	20	Percentage	73.9	80.4	21.7	17.4	26.1	6.5	8.7	13.0	17.4	8.7	4.3

Aerospace core courses
Shared courses with Mechanical programme
Culminating courses
Technical elective courses

Course Information					Knowledge Profile								
No.	Course Code	Course Name	Credit hours	Semester	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9
1	AERO 1121	Introduction to Aerospace Engineering	1	1	✓	✓	✓	✓					
2	MECH 1301	Statics	3	1	✓	✓	✓	✓					
3	MATH 1310	Engineering Mathematics 1	3	1	✓	✓							
4	EECE 1316	Fundamentals of Electrical and Electronics	3	1	✓		✓	✓					
5	MFGA 1201	Computer Aided Drawing	2	1			✓	✓	✓				
6	AERO 1322	Thermal Science	3	2	✓	✓	✓	✓					
7	EECE 1102	Electrical Engineering Lab 1	1	2			✓			✓		✓	
8	MATH 1321	Engineering Mathematics 2	3	2	✓	✓							
9	EECE 1317	Engineering Programming	3	2				✓		✓			
10	MFGA 1141	Introduction to Workshop	1	2			✓				✓		
11	AERO 2302	Dynamics	3	3	✓	✓	✓	✓					
12	AERO 2320	Aerospace Materials and Manufacturing Processes	3	3	✓	✓	✓	✓	✓				
13	MECH 2342	Mechanics of Materials	3	3	✓	✓	✓	✓					
14	MECH 2340	Fluid Mechanics	3	3	✓	✓	✓	✓	✓				
15	MECH 2241	Instrumentation and Measurements	2	3	✓	✓	✓	✓	✓				
16	MATH 2311	Differential Equations	3	3	✓	✓							

Course Information					Knowledge Profile								
No.	Course Code	Course Name	Credit hours	Semester	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9
Aerospace Elective Courses													
1	AERO 4260	Helicopter Aerodynamics	2		✓	✓	✓	✓		✓			
2	AERO 4262	Rocket Propulsion	2		✓	✓	✓	✓		✓			
3	AERO 4263	Aeroelasticity	2		✓	✓	✓	✓					
4	AERO 4287	Composite Structures	2		✓	✓	✓	✓				✓	
5	AERO 4265	Aerospace Composites Technology	2		✓	✓	✓	✓				✓	
6	AERO 4270	Aerospace Manufacturing Technology	2		✓	✓	✓	✓				✓	
7	AERO 4264	Spacecraft Systems Engineering	2		✓	✓	✓	✓		✓			
8	AERO 4286	Nondestructive Evaluation of Structures	2		✓	✓	✓	✓				✓	
BAERO Total Credit Hours = 139		Engineering Credits	119	No of courses	30	32	31	30	11	13	3	8	6
		UniCORE Credits	20	Percentage	65.2	69.6	67.4	65.2	23.9	28.3	6.5	17.4	13.0

Aerospace core courses
Shared courses with Mechanical programme
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Course Information					Complex Problem Solving							Complex Engineering Activities				
No.	Course Code	Course Name	Credit hours	Semester	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	EA 1	EA 2	EA 3	EA 4	EA 5
17	AERO 2128	Aerospace Engineering Lab 1	1	4	✓	✓	✓				✓		✓			
18	AERO 2322	Aerodynamics 1	3	4	✓		✓				✓					
19	AERO 2343	Control Systems	3	4	✓	✓	✓				✓					
20	AERO 2326	Space Mechanics	3	4	✓		✓				✓					
21	MATH 2330	Computational Methods and Statistics	3	4												
22	AERO 3321	Aircraft Structures 1	3	5	✓		✓				✓					
23	AERO 3128	Aerospace Engineering Lab 2	1	5	✓	✓	✓				✓		✓			
24	AERO 3220	Flight Mechanics	2	5	✓		✓				✓					
25	AERO 3326	Aerodynamics 2	3	5	✓		✓				✓					
26	MECH 3342	Computational Mechanics	3	5	✓	✓	✓				✓					
27	MFGA 2305	Project and Operations Management	3	5	✓	✓		✓				✓	✓			
28	AERO 3325	Aircraft Structures 2	3	6	✓	✓	✓				✓					
29	AERO 3327	Aerospace Vehicle Design	3	6	✓	✓	✓				✓					
30	AERO 3324	Aerospace Propulsion	3	6	✓	✓	✓				✓					
31	MECH 3242	IoT and Applications	2	6	✓	✓	✓	✓			✓					
32	MECH 3140	Engineering Design Ideation	1	6	✓		✓	✓	✓	✓	✓	✓		✓		
33	MFGA 3309	Engineering Economics & Management	3	6	✓	✓		✓				✓	✓			

Course Information					Complex Problem Solving							Complex Engineering Activities				
No.	Course Code	Course Name	Credit hours	Semester	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	EA 1	EA 2	EA 3	EA 4	EA 5
34	AERO 3500	Engineering Industrial Training	5	SS									✓			
35	AERO 4122	Aerospace Engineering Lab 3	1	7	✓	✓	✓				✓		✓			
36	AERO 4342	Spacecraft Dynamics and Control	3	7	✓	✓	✓				✓					
37	AERO 4200	Final Year Project 1	2	7	✓	✓	✓				✓	✓	✓			✓
38	AERO 43XX	Technical Elective 1	2	7												
39	MECH 4300	Integrated Design Project	3	7	✓	✓	✓	✓	✓	✓	✓	✓	✓			
40	XXXX XXXX	Free Elective 1	3	7												
41	AERO 4400	Final Year Project 2	4	8	✓	✓	✓				✓	✓	✓			✓
42	XXXX XXXX	Free Elective 2	3	8												
43	AERO 4XXX	Technical Elective 2	2	8												
44	AERO 4322	Flight Dynamics and Control	3	8	✓	✓	✓	✓			✓					
45	MECH 4211	Technology Entrepreneurship	2	8								✓				
46	GENE 4301	Engineering Ethics, Safety and Environment	3	8												
Aerospace Elective Courses																
1	AERO 4260	Helicopter Aerodynamics	2		✓		✓				✓					
2	AERO 4262	Rocket Propulsion	2		✓		✓				✓					
3	AERO 4263	Aeroelasticity	2		✓		✓				✓					

Course Information					Complex Problem Solving							Complex Engineering Activities				
No.	Course Code	Course Name	Credit hours	Semester	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	EA 1	EA 2	EA 3	EA 4	EA 5
4	AERO 4287	Composite Structures	2		✓	✓	✓				✓					
5	AERO 4265	Aerospace Composites Technology	2		✓	✓	✓				✓					
6	AERO 4270	Aerospace Manufacturing Technology	2		✓	✓	✓				✓					
7	AERO 4264	Spacecraft Systems Engineering	2		✓		✓				✓					
8	AERO 4286	Nondestructive Evaluation of Structures	2		✓	✓	✓				✓					
BAERO Total Credit Hours = 139		Engineering Credits	119	No of courses	32	20	28	9	2	2	28	9	11	1	0	2
		UniCORE Credits	20	Percentage	69.6	43.5	60.9	19.6	4.3	4.3	60.9	19.6	23.9	2.2	0.0	4.3
<div> <div>Aerospace core courses</div> <div>Shared courses with Mechanical programme</div> <div>Culminating courses</div> <div>Technical elective courses</div> </div>																

No.	Course Code	Course Name	Credit hours	Semester*	UniCORE Learning outcomes (ULO)								MQF 2.0 Domain				
					1	2	3	4	5	6	7	8	1	2	3	4	5
1	UNGS 1301	Basic Philosophy and Islamic Worldview	3	1	✓			✓				✓	✓		✓	✓	
2	CCUB 1061	Usrah 1	0.5	1				✓		✓	✓				✓	✓	
3	LQAD 1003	Arabic for Ibadah 1	0.5	1		✓		✓			✓			✓	✓	✓	✓
4	TQTD 1002	Tilawah Al-Quran 1	0.5	1		✓					✓			✓	✓		✓
5	SCSH 1201	Sustainable Development: Issues, Policies and Practices	2	2	✓	✓	✓			✓	✓		✓	✓	✓		✓
6	LEED 1301	English for Academic Writing	3	2		✓	✓	✓						✓	✓	✓	✓
7	CCUB 1062	Usrah 2	0.5	3				✓		✓	✓				✓	✓	
8	TQTD 2002	Tilawah Al-Quran 2	0.5	4		✓					✓			✓	✓		✓
9	LQAD 2003	Arabic for Ibadah 2	0.5	4		✓		✓			✓			✓	✓	✓	✓
10	SCSH 2163	Usrah in Action 1	1	4	✓	✓			✓		✓	✓	✓	✓	✓		✓
11	UNGS 2290	Knowledge and Civilization in Islam	2	4	✓					✓			✓		✓		
12	CCLM 2051	Leadership and Management	0.5	5	✓		✓	✓			✓	✓	✓		✓	✓	
13	CCSS 1010/2010/3010	Skill 1	0.5	5			✓								✓		
14	CCFM 2061	Family Management	0.5	6	✓	✓	✓	✓			✓		✓	✓	✓	✓	✓
15	SCSH 3164	Usrah in Action 2	1	6	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓
16	CCSS 1010/2010/3010	Skill 2	0.5	7			✓								✓		
17	UNGS 2380	Ethics and Fiqh of Contemporary Issues	3	7	✓		✓	✓		✓			✓		✓	✓	
UniCORE Credits			20	No of courses	8	9	8	10	1	6	10	4	8	9	17	10	9
				Percentage	47.1	52.9	47.1	58.8	5.9	35.3	58.8	23.5	47.1	52.9	100.0	58.8	52.9

*Semester according to BAERO proposed study plan