



Course Structure-B.Tech Aeronautical Engineering
Semester – III

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	17YAE301	MECHANIC OF SOLIDS	3	0	0	3	50	-	100	-	150
2	PC	17YAE302	FLUID DYNAMICS	3	0	2	4	50	50	100	50*	250
3	PC	17YAE303	THERMODYNAMICS	3	0	0	3	50	-	100	-	150
4	PC	17YAE304	PRINCIPLES OF FLIGHT	3	0	0	3	50	-	100	-	150
5	PC	17YAE305	AIRCRAFT MATERIALS	3	0	0	3	50	-	100	-	150
6	UC	17YAE311	INTERNSHIP #	0	0	2	1	-	50	-	50*	100
7	PC	17YAE312	MECHANICS OF SOLIDS LABORATORY	0	0	2	1	-	50	-	50*	100
8	PC	17YAE313	THERMODYNAMICS LABORATORY	0	0	2	1	-	50	-	50*	100
9	UC	17YHS311/ 17YHS312	HSS (Foreign Language)	0	0	2	1	-	50	-	50*	100
TOTAL				15	0	12	20	250	300	500	300	1350

		Formative Assessment		
CIA: Continuous Internal Assessment	#: Internship for 15 days.	CIA	Weightage	Description
L: Theory Lecture	*: Oral Examination	CIA 1	10%	Home Assignment
T: Tutorial	UC: University Core	CIA 2	20%	Written Exam
P: Practical	PC: Programme Core	CIA 3	10%	Seminar Presentation
ESE: End Semester Exam	PE: Programme Elective	CIA 4	10%	Activity/Project & Research Based Activity
	OE: Open Elective	TOTAL	50%	
	VAC: Value Added Courses			



Course Structure-B.Tech Aeronautical Engineering
Semester – IV

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	17YAE401	AERODYNAMICS – I	3	0	2	4	50	50	100	50*	250
2	PC	17YAE402	AIRCRAFT PROPULSION – I	3	0	0	3	50	-	100	-	150
3	PC	17YAE403	AIRCRAFT STRUCTURES – I	3	0	0	3	50	-	100	-	150
4	PC	17YAE404	AIRCRAFT SYSTEMS & INSTRUMENTS	3	0	0	3	50	-	100	-	150
5	PC	17YBS401	DIFFERENTIAL EQUATIONS AND APPLICATIONS	3	0	0	3	50	-	100	-	150
6	UC	17YBS401	ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	2	0	0	2	50	-	100	-	150
7	PC	17YAE411	AIRCRAFT PROPULSION LABORATORY	0	0	2	1	-	50	-	50*	100
8	PC	17YAE412	AIRCRAFT STRUCTURES – I LABORATORY	0	0	2	1	-	50	-	50*	100
TOTAL				16	0	08	20	300	150	600	150	1200

		Formative Assessment		
CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	#: Internship for 15 days. * : Oral Examination UC: University Core PC: Programme Core PE: Programme Elective OE: Open Elective VAC: Value Added Courses	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Written Exam
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Activity/Project & Research Based Activity
		TOTAL	50%	



**Course Structure-B.Tech B.Tech Aeronautical Engineering
Semester – V**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	17YAE501	AERODYNAMICS – II	3	0	0	3	50	-	100	-	150
2	PC	17YAE502	AIRCRAFT PROPULSION – II	3	0	2	4	50	50	100	50*	250
3	PC	17YAE503	AIRCRAFT STRUCTURES – II	3	0	0	3	50	-	100	-	150
4	PC	17YAE504	FLIGHT MECHANICS - I	3	0	0	3	50	-	100	-	150
5	PC	17YAE505	AVIONICS	3	0	0	3	50	-	100	-	150
6	PC	17YAE512	AIRCRAFT STRUCTURE - II LABORATORY	0	0	2	1	-	50	-	50*	100
7	PC	17YAE 513	AVIONICS LABORATORY	0	0	2	1	-	50	-	50*	100
8	UC	17YAE 511	INTERSHIP II #	0	0	4	2	-	50	-	50*	100
TOTAL				15	0	08	20	250	200	500	200	1150
*Value Added Courses (Any One)												
1	VAC	VAE511	Design using CATIA*	0	0	4	2	-	100	-	-	100
2	VAC	VAE512	Soft Skills & Aptitude*	0	0	4	2	-	100	-	-	100
3	VAC	VAE513	Aircraft Maintenance *	0	0	2	2	-	100	-	-	100

		Formative Assessment		
CIA: Continuous Internal Assessment	#: Internship for 25 days.	CIA	Weightage	Description
L: Theory Lecture	∗: Oral Examination	CIA 1	10%	Home Assignment
T: Tutorial	UC: University Core	CIA 2	20%	Written Exam
P: Practical	PC: Programme Core	CIA 3	10%	Seminar Presentation
ESE: End Semester Exam	PE: Programme Elective	CIA 4	10%	Activity/Project & Research Based Activity
	OE: Open Elective	TOTAL	50%	
	VAC: Value Added Courses			



Course Structure-B.Tech B.Tech Aeronautical Engineering
Semester – VI

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	17YAE601	NUMERICAL METHODS & PROGRAMMING	3	0	2	4	50	50	100	50*	250
2	PC	17YAE602	THEORY OF VIBRATIONS	3	1	0	4	50	-	100	-	150
3	PC	17YAE603	FLIGHT MECHANICS - II	3	0	0	3	50	-	100	-	150
4	PC	17YAE604	LINEAR CONTROL THEORY	3	0	0	3	50	-	100	-	150
5	OE		Open Elective I	3	0	0	3	50	-	100	-	150
6	PC	17YAE611	FLIGHT CONTROL's Laboratory	0	0	2	1	-	50	-	50*	100
7	PC	17YAE612	SEMINAR	0	0	4	2	-	50	-	50*	100
TOTAL				15	1	10	20	250	150	500	150	1050
Open Elective												
1	OE	OAE 611	Drone Technology	3	0	0	3	50	-	100	-	150
*Value Added Courses (Any One)												
1	VAC	VAE611	MAT Lab for Aeronautical Engineering*	0	0	4	2	-	100	-	-	100
2	VAC	VAE612	Aircraft Safety*	0	0	4	2	50	-	-	-	50
3	VAC	VAE613	Helicopter Engineering*	0	0	4	2	50	-	-	-	50

		Formative Assessment		
CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	#: Internship for 25 days. ∗: Oral Examination UC: University Core PC: Programme Core PE: Programme Elective OE: Open Elective VAC: Value Added Courses	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Written Exam
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Activity/Project & Research Based Activity
		TOTAL	50%	



**Course Structure-B.Tech B.Tech Aeronautical Engineering
Semester – VII**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	17YAE701	AIRCRAFT DESIGN	3	0	0	3	50	-	100	-	150
2	PC	17YAE702	AIRCRAFT NAVIGATION ,GUIDANCE & CONTROL	3	0	0	3	50	-	100	-	150
3	PC	17YAE703	COMPUTATIONAL ANALYSIS	3	0	2	4	50	50	100	50*	250
4	PE	17YAE-01/02/03/04	Programme Elective I	3	0	0	3	50	-	100	-	150
5	OE		Open Elective II	3	0	0	3	50	-	100	-	150
6	UC	17YAE713	Internship III #	0	0	6	3	-	50	-	50*	100
7	PC	17YAE714	Project Stage I	0	0	6	3	-	50	-	100*	150
TOTAL				15	0	16	23	250	150	500	200	1100
Open Elective II												
1	OE											
*Value Added Courses (Any One)												
1	VAC	VAE711	Advanced CFD using Ansys Fluent *	0	0	4	2	-	50	-	-	50
2	VAC	VAE712	COMBUSTION ENGINEERING*	0	0	4	2	50	-	-	-	50
3	VAC	VAE713	AUTOMATIC CONTROL SYSTEM *	0	0	4	2	50	-	-	-	50

Course Code	Programme Elective I
17YAE - 01	AIR AND SPACE TRANSPORTATION SYSTEMS
17YAE - 02	UNMANNED AERIAL VEHICLE
17YAE - 03	COMPOSITE MATERIALS
17YAE - 04	ORBITAL MECHANICS

			Formative Assessment		
CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	#: Internship for 45 days. *: Oral Examination UC: University Core PC: Programme Core PE: Programme Elective OE: Open Elective VAC: Value Added Courses	CIA	Weightage	Description	
		CIA 1	10%	Home Assignment	
		CIA 2	20%	Written Exam	
		CIA 3	10%	Seminar Presentation	
		CIA 4	10%	Activity/Project & Research Based Activity	
		TOTAL	50%		



Course Structure-B.Tech Aeronautical Engineering
Semester – VIII

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PE	17YAEE - 05/06/07/08	Programme Elective II	3	0	0	3	50	-	100	-	150
2	PE	17YAEE-09/10/11/12	Programme Elective III	3	0	0	3	50	-	100	-	150
3	PE	17YAEE-13/14/15/16	Programme Elective IV	3	0	0	3	50	-	100	-	150
4	PC	17YAE811	Project Stage II	0	0	16	8	-	50	-	100	150
TOTAL				9	0	16	17	150	50	300	100	600

Course Code	Programme Elective II	Course Code	Programme Elective III	Course Code	Programme Elective IV
17YAEE -05	High Speed Aerodynamics	17YAEE -09	Heat Transfer	17YAEE -13	Aeroelasticity
17YAEE -06	Experintial Methods	17YAEE -10	Finite Element Methods in Aerospace Structures	17YAEE -14	Product Design &Development
17YAEE -07	Aiport Planning and Operations	17YAEE -11	Space Dynamics	17YAEE -15	Analysis of Composite Structure
17YAEE -08	Introduction to NDT	17YAEE -12	Missile Aerodynamics	17YAEE -16	CNS & ATM

				Formative Assessment		
CIA: Continuous Intemal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	#: Internship for 45 days. ∗: Oral Examination UC: University Core PC: Programme Core PE: Programme Elective OE: Open Elective VAC: Value Added Courses	CIA	Weightage	Description		
		CIA 1	10%	Home Assignment		
		CIA 2	20%	Written Exam		
		CIA 3	10%	Seminar Presentation		
		CIA 4	10%	Activity/Project &Research Based Activity		
		TOTAL	50%			