INDIAN INSTITUTE OF AERO SPACE TECHNOLOGY AND MANAGEMENT

Programme Structure of the B. Tech Aerospace Engineering

First Year (First Semester)

S. no	Course Code	Course Title	Credit	Nature of the Course
1.	ET – 101A	Mathematics – I	4	Theory
2.	BAS – 001	Applied Physics	4	Theory
3.	BAS – 002	Applied Chemistry	4	Theory
4.	BAS – 003	Technical Writing & Communication Skill	4	Theory
5.	BAE – 016	Engineering Mechanics	4	Theory
6.	BASL – 001	Lab -1: (Applied Science Lab for Physics & Chemistry)	3	Practical
7.	BASL – 002	Lab-2 (Applied Mechanics)	3	Practical
		Total	26	

First Year (Second Semester)

S.No.	Course Code	Course Title	Credit	Nature of the Course
1.	ET-101 B	Mathematics – II	4	Theory
2.	BAS – 004	Workshop Technology	4	Theory
3.	BAS- 005	Engineering Drawing	4	Theory
4.	BME – 021	Principles of Electrical and Electronic Science	4	Theory
5.	BAS – 006	Computer Fundamentals	4	Theory
6.	BASL – 003	Lab – 3: (Workshop Practical)	3	Practical
7.	BASL – 004	Lab – 4: (Engineering Drawing)	3	Practical
8.	BASL – 005	Lab–5:(Electrical & Electronics)	3	Practical
9.	BASL – 006	Lab–6:(Computer Fundamentals)	3	Practical
		Total	32	

Second Year (Third Semester)

S No	Course Code	Course Title	Credit	Nature of the Course
1.	BAS-007	CNS ATM Systems	4	Theory
2.	BAS – 008	Strength of Materials	4	Theory
3.	BME-018	Materials Science	4	Theory
4.	ET-201 A	Mechanics of Fluid	4	Theory
5.	BAS – 009	Introduction to Aeronautics	4	Theory
6.	BASL-007	Lab – 7 : (CNS – ATM Systems)	3	Practical
7.	ET – 574	Lab -8 : (Fluid Mechanics)	3	Practical
8.	BASL – 009	Lab-9 (Aero-Modeling)	3	Practical
9.	BASL-010	Lab-10 (Material Science)	3	Practical
		Total	32	

Second Year (Fourth Semester)

No.	Course Code	Course Title	credit	Nature of the Course
1.	BAS – 010	Machine Design	4	Theory
2.	ET – 201 B	Thermodynamics	4	Theory
3.	BAS – 001	Aircraft Systems & Airworthiness Requirements	4	Theory
4.	BAS – 012	Aerodynamics – I	4	Theory
5.	BAS – 13	Propulsion – I	4	Theory
6.	BASL – 011	Lab-11: (Thermodynamic)	2	Practical
7.	BASL – 012	Lab – 12 : (Aerodynamics Lab)	3	Practical
8.	BASL – 013	Lab-13: (Machine Design)	2	Practical
9.	BASL – 014	Industrial Training of 2 weeks during vacation	4	Practical
		Total	31	

Third Year (Fifth Semester)

S.No.	Course Code	Course Title	Credit	Nature of the Course
1.	ET – 102	Mathematics - III	4	Theory
2.	BAS – 014	Aircraft Structures	4	Theory
3.	BAS – 15	Aerodynamics - II	4	Theory
4.	BAS – 16	Propulsion - II	4	Theory
5.	BAS – 17	Flight Mechanics	4	Theory
6.	BASL – 015	Lab 14 : (Propulsion-II)	3	Practical
7.	BASL – 016	Lab–15: (Aerodynamics – II)	3	Practical
8.	BASL – 017	Lab-16:(Aircraft Structure)	3	Practical
		Total	29	

Third Year (Sixth Semester)

S.No.	Course Code	Course Title	Credit	Nature of the Course
1.	ET – 524	Principles of Engineering Management and Economics	4	Theory
2.	BAS – 018	Aircraft Safety and Maintenance Engineering	4	Theory
3.	BAS – 019	Aircraft Instruments	4	Theory
4.	BAS – 20	Basic Control Theory	4	Theory
5.	BASL – 018	Lab – 17 : (Basic Control Theory)	4	Practical
6.	BASL – 019	Lab - 18 : (CAD-CAM)	3	Practical
7.	BASL – 020	Professional Training/Report Writing / Presentation	3	Practical
		Total	29	

Fourth Year (Seventh Semester)

S.No.	Course Code	Course Title	Credit	Nature of the Course
1.	BAS – 021	Environmental Science	4	Theory
2.	BAS-022	Composite Materials	4	Theory
3.	BME – 006	Mechatronics	4	Theory
4.	BME – 007	Quality Engineering	4	Theory
5.	BMEL – 002	Lab-19: (Mechatronics)	3	Practical
6.	BASP-001	Project	9	Practical
		Total	28	

Fourth Year (Eight Semester)

S.No.	Course Code	Course Title	Credit	Nature of the Course
1.	BAS – 023	Aircraft Design / Launch / Rocket Design	4	Theory
2.	BAS – 024	Introduction to Rockets & Missiles	4	Theory
3.	BAS – 025	Space Dynamics	4	Theory
4.	Please refer table below	Elective	4	Theory
5.	BASP-002	Project on Aircraft on Aircraft Design / Launch vehicle or Rocket System Design	104	Project
		Total	26	

Course Code for the Elective Courses

S.No.	Course Code	Course Title	Credit
1.	BASE – 001	Helicopter Engineering	4
2.	BASE – 002	Rocket Propulsion	4
3.	BASE – 003	High Speed Aerodynamics	4
4.	BASE – 004	Flight Testing	4
5.	BASE – 005	Introduction to Computational Fluid Dynamics	4
6.	BASE – 006	Finite Elements Methods	3
7.	BASE – 007	Microprocessor	3
8.	BASE – 008	Applied Industrial Aerodynamics	3
		Total	29