B.E. AERONAUTICAL ENGINEERING
Minimum Credits to be Earned 172.0

First Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AE101	ENGINEERING MATHEMATICS I	I	a,b	3	1	0	4
18AE102	ENGINEERING PHYSICS I	I,II,III	a,b,i	2	0	2	3
18AE103	ENGINEERING CHEMISTRY I	I	a,b	2	0	2	3
18AE104	AIRCRAFT PRODUCTION TECHNOLOGY	I,II	a,b,c,d,e,f	2	0	2	3
18HS101	COMMUNICATIVE ENGLISH I	II,III	i,j	1	0	2	2
18AE106	COMPUTER PROGRAMMING I	I,II	a,b,c,e	0	0	4	2
			Total	10	1	12	17.0

Second Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AE201	ENGINEERING MATHEMATICS II	I	a,b	3	1	0	4
18AE202	ENGINEERING PHYSICS II	I	a,b	2	1	0	3
18AE203	ENGINEERING CHEMISTRY II	I	a,b	2	0	2	3
18AE204	BASICS OF ELECTRICAL ENGINEERING	I	a,b	2	0	2	3
	LANGUAGE ELECTIVE	-	-	-	-	-	2
18AE206	ENGINEERING DRAWING	I,II,III	a,i,j	1	0	4	3
18AE207	COMPUTER PROGRAMMING II	I,II	a,b,e	0	0	4	2
			Total	10	2	12	20.0

Third Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AE301	ENGINEERING MATHEMATICS III	I	a,b	3	1	0	4
18AE302	PRINCIPLES OF FLIGHT	I	a,b,c	3	0	0	3
18AE303	SOLID MECHANICS	I	a,b	2	1	2	4
18AE304	FLUID MECHANICS	I	a,b,c,d	2	1	2	4
18AE305	AERO ENGINEERING THERMODYNAMICS	I	a,b	3	1	0	4
18AE306	BASICS OF ELECTRONICS ENGINEERING	I	a,b,m,n	3	0	0	3
18AE307	MACHINE DRAWING LABORATORY	I,II,III	a,c,e,i,j,k	0	0	4	2
18GE301	SOFT SKILLS - VERBAL ABILITY	-	-	2	0	0	0
			Total	18	4	8	24.0

Fourth Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AE401	AIRCRAFT STRUCTURES I	I	a,b	3	1	0	4
18AE402	AERODYNAMICS	I,III	a,b,d,g	3	0	2	4
18AE403	AIRCRAFT PROPULSION	I,II	a,b,c,d,e	2	1	2	4
18AE404	AIRCRAFT SYSTEMS AND INSTRUMENTS	I,II,III	a,b,d,e,f,h	2	0	2	3
18AE405	HEAT TRANSFER	I,II,III	a,b,c,d,e,g	3	0	2	4
18AE406	CONTROL THEORY	I	a,b,c,m,n	3	0	0	3
18AE407	MODELING LABORATORY	I,II	c,e	0	0	2	1
18HS001	ENVIRONMENTAL SCIENCE	I	a,b	2	0	0	0
18GE401	SOFT SKILLS-REASONING	-	-	2	0	0	0
			Total	20	2	10	23.0

Fifth Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AE501	GAS DYNAMICS	I	a,b,c,d	3	1	0	4
18AE502	AIRCRAFT STRUCTURES II	I,II	a,b,c,d,e	3	0	2	4
18AE503	ROCKET PROPULSION	I	a,b,c	3	1	0	4
18AE504	FINITE ELEMENT ANALYSIS	I	a,b,c,d	3	1	0	4
	PROFESSIONAL ELECTIVE I	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE II	-	-	-	-	-	3
18AE507	STRUCTURAL SIMULATION LABORATORY	I,II,III	b,c,d,e,h	0	0	2	1
18AE508	AIRCRAFT STRUCTURES AND ENGINE REPAIR LABORATORY	I,II	a,b,c,d,e,f	0	0	2	1
18GE501	SOFT SKILLS - APTITUDE I	-	-	0	0	2	0
			Total	12	3	8	24.0

Sixth Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				

18HS002	PROFESSIONAL ETHICS IN ENGINEERING	-	-	2	0	0	2
18AE602	COMPUTATIONAL FLUID DYNAMICS	I,II	a,b,c,d,e,f	3	1	0	4
18AE603	FLIGHT DYNAMICS	I	a,b,c,d	3	1	0	4
18AE604	AVIONICS	I,II	b,f,m,n	3	0	2	4
18AE607	FLOW SIMULATION LABORATORY	I,II	a,b,c,d,e	0	0	2	1
18AE608	AIRCRAFT DESIGN PROJECT	I,II,III	a,b,c,d,e,h,i,k	0	0	4	2
18GE601	SOFT SKILLS-APTITUDE II	-	-	0	0	2	0
	PROFESSIONAL ELECTIVE III	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE IV	-	-	-	-	-	3
			Total	11	2	10	23.0

Seventh Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18HS003	PRINCIPLES OF MANAGEMENT	-	-	2	0	0	2
18AE702	UAV SYSTEMS	I,II	a,b,f,m,n	3	0	0	3
18AE703	VIBRATIONS	I	a,b,d	3	1	0	4
18AE704	COMPOSITES AND STRUCTURES	I,II	a,b,c,d,e	3	1	0	4
	PROFESSIONAL ELECTIVE V	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE VI	-	-	-	-	-	3
18AE707	FLIGHT PERFORMANCE LABORATORY	I,II,III	c,d,e,h,i,k	0	0	2	1
18AE708	PROJECT WORK I	I,II,III	a,b,c,d,e,f,g,h, i,j,k,l	0	0	6	3
			Total	11	2	8	23.0

Eight Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AE804	PROJECT WORK II	I,II,III	a,b,c,d,e,f,g,h, i,j,k,l	0	0	18	9
	PROFESSIONAL ELECTIVE VII	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE VIII	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE IX	-	-	-	-	-	3
			Total	0	0	18	18.0

Electives

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
CORE-THEORY							
21AE501	GASDYNAMICS	-	-	3	1	0	4
21AE502	AIRCRAFTSTRUCTURES II	-	-	3	0	2	4
21AE503	ROCKETPROPULSION	-	-	3	1	0	4
21AE504	FINITEELEMENTANALYSIS	-	-	3	1	0	4
CORE-LABORATORY							
21AE507	STRUCTURALSIMULATIONLABORATORY	-	-	0	0	2	1
21AE508	AIRCRAFT STRUCTURES AND ENGINE REPAIR LABORATORY	-	-	0	0	2	1
DISCIPLINE ELECTIVES							
21AE021	AIR TRAFFIC CONTROL AND AERODROME DESIGN	-	-	3	0	0	3
21AE037	CIVIL AVIATION REQUIREMENTS	-	-	3	0	0	3
SPECIAL COURSES							
21GE501	SOFT SKILLS Â?? APTITUDE I	-	-	0	0	2	0
OPEN ELECTIVES							
18MC0YA	INDUSTRIAL ROBOTICS	-	-	3	0	0	3
18MC0YC	MICRO ELECTRO MECHANICAL SYSTEMS	-	-	3	0	0	3
ADDITIONAL ONE CREDIT COURSE							
18GE0XA	ETYMOLOGY	-	-	1	0	0	1
18GE0XB	GENERAL PSYCHOLOGY	-	-	1	0	0	1
18GE0XC	NEURO BEHAVIORAL SCIENCE	II,III	i	1	0	0	1
18GE0XD	VISUAL MEDIA AND FILM MAKING	I,II	b,f	1	0	0	1
18GE0XE	YOGA FOR HUMAN EXCELLENCE	-	-	1	0	0	1
18GE0XF	VEDIC MATHEMATICS	-	-	1	0	0	1
18GE0XG	HEALTH AND FITNESS	-	-	1	0	0	1
18GE0XH	CONCEPT, METHODOLOGY AND APPLICATIONS OF VERMICOMPOSTING	-	-	1	0	0	1
18GE0XI	BLOG WRITING	II,III	f,g,j	1	0	0	1
18GE0XJ	INTERPERSONAL SKILLS	-	-	1	0	0	1
18GE0XK	NEW AGE INNOVATION AND ENTREPRENEURSHIP	-	-	1	0	0	1
18GE0XL	NATIONAL CADET CORPS	II,III	g,i	1	0	0	1
18GE0XM	COMMUNITY SERVICE AND LEADERSHIP DEVELOPMENT	-	-	1	0	0	1
18GE0XN	DISRUPTIVE INNOVATION BASED STARTUP ACTIVITIES	-	-	1	0	0	1

18GE0XO	SOCIAL PSYCHOLOGY	II,III	i	1	0	0	1
LANGUAGE ELECTIVES							
18HS201	COMMUNICATIVE ENGLISH II	II,III	i,j	1	0	2	2
18HSC01	CHINESE	-	-	1	0	2	2
18HSF01	FRENCH	II	j	1	0	2	2
18HSG01	GERMAN	-	-	1	0	2	2
18HSH01	HINDI	-	-	1	0	2	2
18HSJ01	JAPANESE	-	-	1	0	2	2
DISCIPLINE ELECTIVES							
18AE001	THEORY OF ELASTICITY	I	a,b,c,d	3	0	0	3
18AE002	EXPERIMENTAL STRESS ANALYSIS	I,II	a,b,c,d,e	3	0	0	3
18AE003	FATIGUE AND FRACTURE MECHANICS	I,II	a,b,c,d,e	3	0	0	3
18AE004	NDT FOR AERONAUTICAL APPLICATIONS	I,II	a,b,c,d,e	3	0	0	3
18AE005	PYTHON FOR AEROSPACE ENGINEERING	I,II	a,b,c,e	3	0	0	3
18AE006	CORROSION OF AEROSPACE MATERIALS	I,II	a,b,c,d,e	3	0	0	3
18AE007	WIND TUNNEL INSTRUMENTATION AND MEASUREMENTS	I	a,b,c,d	3	0	0	3
18AE008	HELICOPTER AERODYNAMICS	I	a,b,c,d	3	0	0	3
18AE009	INDUSTRIAL AERODYNAMICS	I	a,b,c	3	0	0	3
18AE010	CRYOGENICS	I	a,b,c	3	0	0	3
18AE011	WIND POWER ENGINEERING	I	a,b,c	3	0	0	3
18AE012	SPACE MECHANICS	I	a,b,c,d	3	0	0	3
18AE013	HIGH TEMPERATURE GAS DYNAMICS	I	a,b	3	0	0	3
18AE014	COMBUSTION	I	a,b	3	0	0	3
18AE015	WIND TUNNEL TECHNIQUES	I	a,b,c,d	3	0	0	3
18AE016	AERO ENGINE REPAIR AND MAINTENANCE	I,II	a,b,c,d,e,f	3	0	0	3
18AE017	AIRFRAME MAINTENANCE AND REPAIR	I,II	a,b,c,d,e	3	0	0	3
18AE018	AIR TRAFFIC CONTROL AND AERODROME DESIGN	II,III	f,g,h,m,n	3	0	0	3
18AE019	CIVIL AVIATION REQUIREMENTS	II,III	f,g,h,m,n	3	0	0	3
18AE020	PRINCIPLES OF NAVIGATION	I,II	b,f,m,n	3	0	0	3
18AE021	AIRCRAFT GENERAL ENGINEERING AND MAINTENANCE PRACTICES	I,II,III	a,b,c,e,f,g,h,i	3	0	0	3
18AE022	CRISIS MANAGEMENT IN AIRCRAFT INDUSTRY	I,II	a,b,c,d,e,f	3	0	0	3
18AE023	AIRLINE AND AIRPORT MANAGEMENT	I,II	b,f,m,n	3	0	0	3
18AE024	HELICOPTER MAINTENACE	I,II,III	a,b,c,f,g	3	0	0	3
18AE025	GUIDANCE OF MISSILES	I,II	a,b,c,d,e	3	0	0	3
18AE026	AIRCRAFT DESIGN	I,II	a,b,c,d,e	3	0	0	3
ENTREPRENEURSHIP ELECTIVES							
18GE0E1	ENTREPRENEURSHIP DEVELOPMENT I	-	-	3	0	0	3
18GE0E2	ENTREPRENEURSHIP DEVELOPMENT II	-	-	3	0	0	3
ONE CREDIT COURSES							
18AE0XA	WIND TURBINE DESIGN AND TESTING	I	a,b	0	0	0	1
18AE0XB	REAL TIME INDUSTRIAL APPLICATIONS IN CFD	I	a,b	0	0	0	1
18AE0XC	FAILURE ANALYSIS OF ADVANCED COMPOSITES	I	a,b	0	0	0	1
18AE0XD	TECHNICAL DOCUMENTATION FOR AEROSPACE ENGINEERING SERVICES	I	a,b	0	0	0	1
18AE0XE	INTRODUCTION TO AEROSPACE NAVIGATION	I	a,b	0	0	0	1
MATHEMATICS ELECTIVES							
18GE0M1	GRAPH THEORY AND COMBINATORICS	-	-	3	0	0	3
18GE0M2	ALGEBRA AND NUMBER THEORY	-	-	3	0	0	3
18GE0M3	MATHEMATICAL FINANCE AND QUEUEING THEORY	-	-	3	0	0	3
OPEN ELECTIVES							
18AE0YA	NON-DESTRUCTIVE TESTING	I,II	a,b,c,d,e	3	0	0	3
18AE0YB	SMART MATERIALS	I,II	a,b,c,d,e	3	0	0	3
18AE0YC	FUNDAMENTALS OF AIRCRAFT ENGINEERING	I	a,b,c	3	0	0	3
18GE0C1	CORROSION SCIENCE AND ENGINEERING	I,III	a,b,g	3	0	0	3
18GE0C2	ENERGY STORING DEVICES	I,III	a,b,g	3	0	0	3
18GE0C3	POLYMER SCIENCE	I	a,b,c	3	0	0	3
18GE0P1	NANOMATERIALS SCIENCE	-	-	3	0	0	3
18GE0P2	SEMICONDUCTOR PHYSICS AND DEVICES	-	-	3	0	0	3
18GE0P3	APPLIED LASER SCIENCE	-	-	3	0	0	3
18GE0P4	BIO-PHOTONICS	-	-	3	0	0	3
18GE0P5	PHYSICS OF SOFT MATTER	-	-	3	0	0	3
18AG0YA	ENTREPRENEURSHIP DEVELOPMENT AND FOOD QUALITY MANAGEMENT FOOD INDUSTRY	-	-	3	0	0	3
18AG0YB	HUMAN ENGINEERING AND SAFETY IN AGRICULTURE	-	-	3	0	0	3
18AG0YC	ENERGY MANGEMENT IN AGRICULTURE	-	-	3	0	0	3
18AG0YD	FARM MECHANISATION	-	-	3	0	0	3
18AU0YA	AUTOMOTIVE ENGINEERING	-	-	3	0	0	3
18AU0YB	VEHICLE CONTROL SYSTEMS	-	-	3	0	0	3

18AU0YC	PUBLIC TRANSPORT MANAGEMENT	-	-	3	0	0	3
18AU0YD	TECHNOLOGIES FOR GREEN MOBILITY	-	-	3	0	0	3
18AU0YE	TROUBLE SHOOTING AND MAINTENANCE OF AUTOMOBILES	-	-	3	0	0	3
18BT0YA	BIOFUELS	-	-	3	0	0	3
18BT0YB	MUSHROOM CULTIVATION AND VERMICOMPOSTING	-	-	3	0	0	3
18BT0YC	FORENSIC TECHNOLOGY	-	-	3	0	0	3
18CE0YA	GREEN BUILDINGS	-	-	3	0	0	3
18CE0YB	DISASTER PREPAREDNESS AND PLANNING	-	-	3	0	0	3
18CE0YC	ENVIRONMENTAL IMPACT ASSESSMENT	-	-	3	0	0	3
18CE0YD	BUILDING SERVICES	-	-	3	0	0	3
18CE0YE	INDUSTRIAL WASTE MANAGEMENT	-	-	3	0	0	3
18CE0YF	WEALTH FROM WASTE	-	-	3	0	0	3
18CE0YG	RISK AND SAFETY MANAGEMENT	-	-	3	0	0	3
18CE0YH	ENERGY SCIENCE AND ENGINEERING	-	-	3	0	0	3
18CE0YI	CONCEPTS OF REMOTE SENSING	-	-	3	0	0	3
18CS0YA	E-LEARNING TECHNIQUES	-	-	3	0	0	3
18CS0YB	SOFTWARE TESTING AND QUALITY ASSURANCE	-	-	3	0	0	3
18CS0YC	JAVA FUNDAMENTALS	-	-	3	0	0	3
18CS0YD	NETWORK ENGINEERING AND MANAGEMENT	-	-	3	0	0	3
18CS0YE	AGENT BASED INTELLIGENT SYSTEMS	-	-	3	0	0	3
18CS0YF	E-BUSINESS	-	-	3	0	0	3
18CS0YG	KNOWLEDGE DISCOVERY IN DATABASES	-	-	3	0	0	3
18CS0YH	SOCIAL NETWORK ANALYSIS CONCEPTS	-	-	3	0	0	3
18CS0YI	OPERATING SYSTEM CONCEPTS	-	-	3	0	0	3
18CS0YJ	OBJECT ORIENTED PROGRAMMING	-	-	3	0	0	3
18EC0YA	BASICS OF ANALOG AND DIGITAL ELECTRONICS	-	-	3	0	0	3
18EC0YB	AUTOMOTIVE ELECTRONICS	-	-	3	0	0	3
18EC0YC	PCB DESIGN AND PROTOTYPING	-	-	3	0	0	3
18EC0YD	MICROCONTROLLER PROGRAMMING	-	-	3	0	0	3
18EC0YE	ENGINEERING COMPUTATION WITH MATLAB	-	-	3	0	0	3
18EC0YF	BASICS OF HARDWARE DESCRIPTION LANGUAGES	-	-	3	0	0	3
18EC0YG	FUNDAMENTALS OF EMBEDDED SYSTEMS	-	-	3	0	0	3
18EC0YH	PRINCIPLES OF COMMUNICATION SYSTEMS	-	-	3	0	0	3
18EC0YI	ELECTRONIC PRODUCT DESIGN AND PACKAGING	-	-	3	0	0	3
18EC0YJ	PRINCIPLES OF COMPUTER COMMUNICATION AND NETWORKS	-	-	3	0	0	3
18EE0YA	ENERGY CONSERVATION AND MANAGEMENT	-	-	3	0	0	3
18EE0YB	ELECTRICAL SAFETY	-	-	3	0	0	3
18EE0YC	INDUSTRIAL DRIVES AND CONTROL	-	-	3	0	0	3
18EI0YA	PROGRAMMABLE LOGIC CONTROLLERS	-	-	3	0	0	3
18EI0YB	SENSOR TECHNOLOGY	-	-	3	0	0	3
18EI0YC	FUNDAMENTALS OF VIRTUAL INSTRUMENTATION	-	-	3	0	0	3
18EI0YD	OPTOELECTRONICS AND LASER INSTRUMENTATION	-	-	3	0	0	3
18FD0YA	TRADITIONAL FOODS	-	-	3	0	0	3
18FD0YB	FOOD LAWS AND REGULATIONS	-	-	3	0	0	3
18FD0YC	POST HARVEST TECHNOLOGY OF FRUITS AND VEGETABLES	-	-	3	0	0	3
18FT0YA	FASHION CRAFTS	-	-	3	0	0	3
18FT0YB	FASHION ACCESSORIES	-	-	3	0	0	3
18FT0YC	FASHION VISUAL MERCHANDISING	-	-	3	0	0	3
18FT0YD	INTERIOR DESIGN	-	-	3	0	0	3
18FT0YE	SURFACE EMBELLISHMENT	-	-	3	0	0	3
18GE01	BUSINESS ANALYTICS	-	-	3	0	0	3
18GE02	INDUSTRIAL SAFETY	-	-	3	0	0	3
18GE03	OPERATIONS RESEARCH	-	-	3	0	0	3
18GE04	COST MANAGEMENT OF ENGINEERING PROJECTS	-	-	3	0	0	3
18GE05	COMPOSITE MATERIALS	-	-	3	0	0	3
18GE06	WASTE TO ENERGY	-	-	3	0	0	3
18IT0YA	DATABASE MANAGEMENT SYSTEMS	-	-	3	0	0	3
18IT0YB	DATA STRUCTURES AND ALGORITHMS	-	-	3	0	0	3
18IT0YC	DATA SCIENCES AND ANALYTICS	-	-	3	0	0	3
18IT0YD	OBJECT ORIENTED PROGRAMMING	-	-	3	0	0	3
18IT0YE	ARTIFICIAL INTELLIGENCE	-	-	3	0	0	3
18ME0YA	INDUSTRIAL PROCESS ENGINEERING	-	-	3	0	0	3
18ME0YB	SAFETY ENGINEERING	-	-	3	0	0	3
18ME0YC	MAINTENANCE ENGINEERING	-	-	3	0	0	3
18ME0YD	BASICS OF NON-DESTRUCTIVE TESTING	-	-	3	0	0	3
18ME0YE	DIGITAL MANUFACTURING	-	-	3	0	0	3
18ME0YF	WORK STUDY AND ERGONOMICS	-	-	3	0	0	3
18ME0YG	METROLOGY IN INDUSTRY	-	-	3	0	0	3

18ME0YH	PLANT LAYOUT AND MATERIAL HANDLING	-	-	3	0	0	3
18ME0YI	CONCEPTS OF ENGINEERING DESIGN	-	-	3	0	0	3
18ME0YJ	OIL HYDRAULICS AND PNEUMATICS	-	-	3	0	0	3
18ME0YK	ENERGY AUDITING AND MANAGEMENT	-	-	3	0	0	3
18ME0YL	LEAN SIX SIGMA	-	-	3	0	0	3
18ME0YM	HEATING VENTILATION AND AIRCONDITIONING	-	-	3	0	0	3
18TT0YA	YARN AND FABRIC MANUFACTURE	-	-	3	0	0	3
18TT0YB	COLOURATION OF TEXTILES	-	-	3	0	0	3
18TT0YC	TEXTILES IN ENGINEERING APPLICATION	-	-	3	0	0	3
18TT0YD	GENERAL TEXTILE TECHNOLOGY	-	-	3	0	0	3