



Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

Declared as Deemed-to-be-University under Section-3 of the UGC Act, 1956

KARUNYA NAGAR, COIMBATORE – 641 114, TAMIL NADU.

DEPARTMENT OF AEROSPACE ENGINEERING

CURRICULUM FOR B.TECH BATCH 2012-16

Semester 1 &2

Code	Name of the Subject	Credits
12EN201	Technical English	4:0:0
12MA201	Algebra, Differential Calculus and Analytical Geometry	4:0:0
12MA202	Multiple Integrals, Differential Equations and Laplace Transforms	4:0:0
12PH201	Applied Physics	4:0:0
12PH202	Applied Physics Lab	0:0:2
12CE201	Basic Civil Engineering	2:0:0
12CH201	Applied Chemistry	3:0:0
12CH202	Applied Chemistry Lab	0:0:2
12CH203	Environmental Studies	3:0:0
12ME103	Basic Mechanical Engineering	2:0:0
12EC101	Basic Electronics	3:0:0
12EE101	Basic Electrical Engineering	3:0:0
12CS101	Programming in C	4:0:0
12CS217	Programming in C Lab	0:0:2
12ME101	Engineering Graphics	0:0:4
12ME102	Workshop Practice	0:0:2
12EN215	Professional English Practice	0:0:2
	Total Credits	50

Semester -3

Code	Name of the Subject	Credits
12MA205	Complex analysis, Statistics and Z Transforms	4:0:0
12ME230	Engineering Mechanics	3:0:0
12CE263	Fluid mechanics & Machinery	3:1:0
12EC246	Microprocessor and Microcontroller	3:0:0
12AE201	Introduction to Aerospace Engineering	4:0:0
12AE202	Thermodynamics	4:0:0
Practical		
12ME228	Machine Drawing Lab	0:0:2
	Total Credits	24

Semester -4

Code	Name of the Subject	Credits
12MA206	Fourier Series, Transforms and Partial Differential Equations	4:0:0
12MS201	Management for Engineers	4:0:0
12AE203	Strength of Aerospace Materials	4:0:0
12AE204	Aerodynamics	4:0:0
12AE207	Thermal Engineering	3:0:0
12AE209	Wind Tunnel Techniques	3:0:0
Practical		
12AE208	Thermal Laboratory	0:0:2
12AE210	CAD Laboratory	0:0:2
	Total Credits	26

Semester -5

Code	Name of the Subject	Credits
12MA220	Computer Literacy with Numerical Methods	4:0:0
12AE211	Aircraft Instrumentation and Avionics	3:0:0
12AE212	Aircraft Structures	4:0:0
12AE214	Flight Dynamics	4:0:0
12AE232	Space Dynamics	4:0:0
12AE220	Gas Dynamics	4:0:0
12VE201/202	Value Education	2:0:0
Practical		
12AE205	Aerodynamics Laboratory - 1	0:0:2
12AE213	Aircraft Structures Laboratory	0:0:2
	Total Credits	29

Semester -6

Code	Name of the Subject	Credits
12AE218	Aerospace Propulsion	4:0:0
12AE216	Computational Fluid Dynamics	4:0:0
12AE221	Heat and Mass Transfer	4:0:0
12AE222	Finite Element Analysis	4:0:0
12AE223	Guidance and Control of Aerospace Vehicles	4:0:0
Practical		
12AE206	Aerodynamics Laboratory – 2	0:0:2
12AE217	CFD Laboratory	0:0:2
12AE219	Propulsion Laboratory	0:0:2
12AE224	Aircraft/Spacecraft Design Project	0:0:2
	Comprehensive Practice	0:0:2
	Total Credits	30

Semester -7

Code	Name of the Subject	Credits
	Professional Elective -1	3:0:0
	Professional Elective -2	3:0:0
	Professional Elective -3	3:0:0
	Professional Elective -4	3:0:0
	Interdisciplinary Elective – 1	3:0:0
	Interdisciplinary Elective – 2	3:0:0
Practical		
	Professional Elective Lab – 1	0:0:2
	Professional Elective Lab – 2	0:0:2
	Total Credits	22

Semester -8

Code	Name of the Subject	Credits
	Professional Elective -5	3:0:0
	Professional Elective -6	3:0:0
	Professional Elective -7	4:0:0
Project		
	Half Semester project	0:0:10
	OR	
	Internships	0:0:10
	Half Semester project	0:0:10
	OR	
	Full Semester Project	0:0:20
	Total Credits	20

CREDITS (Lateral Entry Students)	162
TOTAL CREDITS	201