SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
COIMBATORE-35

DEPARTMENT OF AERONAUTICAL ENGINEERING
REGULATION – 2019

R 2019 SUGGESTED CURRICULAM I – VIII SEMESTERS

B. E. AERONAUTICAL ENGINEERING

Description / Semester	AICTE	SNSCT - Aero Suggested	Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8
Basic Science (BSC)	25	24	8	8	3	3	-	-	2	-
HSMC	12	5	3	2	-	-	-	-	-	-
Engineering Sciences (ESC)	24	22	8	12	2	-	-	-	-	-
Programme Core (PCC)	48	60	-	-	14	18	18	10	-	-
Programme Elective (PEC)	18	9	-	-	-	-	3	3	3	-
Open Elective (OEC)	18	6	-	-	-	-	-	3	3	-
Project/Seminar/Internship	15	39	2	1	5	6	3	3	5	14
Mandatory Courses (MC)	--	-	-	-	-	-	-	-	-	-
TOTAL	160	165	21	23	24	27	24	19	13	14

SEMESTER I										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1	19MAT101	Linear Algebra and Calculus	3	1	0	0	4	4	50/50	BSC
2	19MET101	Engineering Drawing	1	0	4	0	5	3	50/50	ESC
3	19EET101	Basics of Electrical and Electronics Engineering	3	0	0	0	3	3	50/50	ESC
Theory Integrated Practical Courses										
4	19CHB101	Chemistry for Engineers	3	0	2	0	5	4	60/40	BSC
5	19ENB101	Communicative English	2	0	2	0	4	3	60/40	HSMC
6	19GEB101	Design Thinking and Innovation	1	0	0	2	3	2	100/0	EEC
Practical courses										
7	19GEP101	Workshop Practices Laboratory	0	0	4	0	4	2	60/40	ESC
Mandatory Course										
8	19HST102	Indian Constitution	2	0	0	0	2	0	100/0	MC
		Induction Program	3 Week					0	100/0	MC
	Total		**15**	**1**	**12**	**2**	**30**	**21**		

SEMESTER II										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1	19ITT101	Programming in C and Data Structure	3	0	0	0	3	3	50/50	ESC
2	19MET102	Engineering Mechanics	3	1	0	0	4	4	50/50	ESC
3	19AET101	Principles of Flight	3	0	0	0	3	3	50/50	ESC
Theory Integrated Practical Courses										
4	19MAB102	Advanced Calculus and Laplace Transforms	3	0	2	0	5	4	60/40	BSC
5	19PYB103	Physics for Engineers	3	0	2	0	5	4	60/40	BSC
Practical courses										

6	19ENP101	Professional Communication	0	0	4	0	4	2	60/40	HSCM
7	19ITP101	Programming in C and Data Structure Laboratory	0	0	4	0	4	2	60/40	ESC
8	19AEP101	Mini Project-I	One week					1	100/0	EEC
Mandatory Course										
9	19HST101	Environmental Sciences	2	0	0	0	2	0	100/0	MC
	Total		**17**	**1**	**12**	**0**	**30**	**23**		

SEMESTER III										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1	19MAT101	Transform and partial Differential Equation	3	0	0	0	3	3	50/50	BSC
2	19AET203	Fluid Mechanics	3	0	0	0	3	3	50/50	PCC
3	19AET204	Aircraft production technology	3	0	0	0	3	3	50/50	PCC
Theory Integrated Practical Courses										
4	19AEB201	Strength of materials	3	0	2	0	5	4	60/40	PCC
5	19AEB202	Aero Engineering Thermodynamics	3	0	2	0	5	4	60/40	PCC
Practical courses										
6		Python Programming	2	0	0	0	2	2	60/40	ESC
7	19AEP201	Mini Project-II	One Week					1	100/0	EEC
Mandatory Course										
8		Verbal Quantitative Aptitude and Reasoning (VQAR)-I	2	0	0	0	2	2	100/0	MC
9		Personality Development (pers.dev)	2	0	0	0	2	2	100/0	MC
	Total		**21**	**0**	**4**	**0**	**25**	**24**		

SEMESTER IV										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1		Numerical Methods	3	0	0	0	3	3	50/50	BSC
2	19AET205	Aircraft Performance	3	0	0	0	3	3	50/50	PCC
3	19AET206	Propulsion-I	3	0	0	0	3	3	50/50	PCC
Theory Integrated Practical Courses										
4	19AEB203	Aircraft Structures - I	3	0	2	0	5	4	60/40	PCC
5	19AEB204	Aerodynamics – I	3	0	2	0	5	4	60/40	PCC
Practical courses										
6	19AEP202	Tool 1 (ACD LAB) Software	0	0	4	0	4	2	60/40	PCC
		Tech 1 (Internet of Things)	0	0	4	0	4	2	60/40	PCC
Mandatory Course										
7		Summer Internship	2Weeks					2	100/0	MC
8		Verbal, Quantitative Aptitude and Reasoning (VQAR)-II	2	0	0	0	2	2	100/0	MC
9		Additional Language (MOOC)	2	0	0	0	2	2	100/0	MC
	Total		**19**	**0**	**12**	**0**	**31**	**27**		

SEMESTER V										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1	19AET301	Aerodynamics –II	3	0	0	0	3	3	50/50	PCC
2	19AET302	Aircraft stability and control	3	0	0	0	3	3	50/50	PCC
3		Professional Elective-I	3	0	0	0	3	3	50/50	PEC
Theory Integrated Practical Courses										
4	19AEB301	Aircraft Structures - II	3	0	2	0	5	4	60/40	PCC
5	19AEB302	Propulsion - II	3	0	2	0	5	4	60/40	PCC
Practical Courses										
6		Tech 2 Data Analytics	0	0	4	0	4	2	60/40	PCC
7	19AEP301	Aero engineering cad lab	0	0	4	0	4	2	60/40	PCC
8	19AEP302	Mini Project	0	0	0	2	2	1	100/0	EEC
Mandatory Course										
9		Career course - I	0	0	0	2	2	1	100/0	MC
10		Career course - II	0	0	0	2	2	1	100/0	MC
	Total		**17**	**0**	**14**	**0**	**31**	**24**		

SEMESTER VI										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1		Professional Elective-II	3	0	0	0	3	3	50/50	PEC
2		Open Elective-I	3	0	0	0	3	3	50/50	OE
Theory Integrated Practical Courses										
3	19AEB303	Finite Element Method for Aeronautical Applications	3	0	2	0	5	4	60/40	PCC
4	19AEB304	Aircraft Maintenance Practices	3	0	2	0	5	4	60/40	PCC
Practical courses										
5		Tech 3 (Robotics & Automation)	0	0	4	0	4	2	60/40	PCC
Mandatory Course										
6		Career Course – III	0	0	0	2	2	1	100/0	MC
7		Summer Internship	2 Week – During Vacation					2	100/0	EEC
	Total		**13**	**0**	**10**	**0**	**23**	**19**		

SEMESTER VII										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Theory Courses										
1		Biology for Engineers	2	0	0	0	2	2	50/50	BSC
2		Professional Elective-III	3	0	0	0	3	3	50/50	PEC
3		Open Elective-II	3	0	0	0	3	3	50/50	OE
Practical courses										
4		Project Phase-I	0	0	0	4	4	2	60/40	EEC
Career Course										
5		Life skills Course – I	0	0	0	2	2	1	100/0	EEC
6		3D Printing	0	0	4	0	4	2	100/0	MC
	Total		**8**	**0**	**4**	**6**	**18**	**13**		

SEMESTER VIII										
S No.	**Course Code**	**Course**	**L**	**T**	**P**	**J**	**Contact hrs/week**	**Credit**	**Int/Ext**	**Category**
Practical courses										
1		Project-II	0	0	0	24	24	12	60/40	EEC
2		Augmented Reality/Virtual Reality	0	0	4	0	4	2	100/0	ECC
	Total		**0**	**0**	**4**	**24**	**28**	**14**		

Professional Elective Courses

S.No.	COURSES OFFERED	L	T	P	J	C
1.	Cryogenics Engineering	3	0	0	0	3
2.	Experimental Techniques	3	0	0	0	3
3.	Theory of Plates and Shells	3	0	0	0	3
4.	Non-Destructive Testing in Aerospace Application	3	0	0	0	3
5.	Theory of Vibrations	3	0	0	0	3
6.	Theory of Elasticity	3	0	0	0	3
7.	Hypersonic Aerodynamics	3	0	0	0	3
8.	Control engineering	3	0	0	0	3
9.	Introduction To V/STOL and Ground Effect Machines	3	0	0	0	3
10.	Fatigue and Fracture Mechanics	3	0	0	0	3
11.	Advanced Propulsion Systems	3	0	0	0	3
12.	Combustion Engineering	3	0	0	0	3
13.	Heat Transfer	3	0	0	0	3
14.	Nano Technology	3	0	0	0	3
15.	Flight Dynamics	3	0	0	0	3
16.	Space Mechanics	3	0	0	0	3
17.	Aircraft Structural Dynamics	3	0	0	0	3
18.	Aero Engine Maintenance and Repair	3	0	0	0	3
19.	Airframe Repair and Maintenance	3	0	0	0	3
20.	Helicopter Maintenance	3	0	0	0	3
21.	Boundary Layer Theory	3	0	0	0	3
22.	Introduction to Turbulent Flows	3	0	0	0	3
23.	Helicopter Aerodynamics	3	0	0	0	3
24.	Rocketry and Space Mechanics	3	0	0	0	3
25.	Air traffic control and planning	3	0	0	0	3
26.	Air Transportation and Aircraft Maintenance	3	0	0	0	3
27.	UAV and MAV Design	3	0	0	0	3
28.	Robotics and Automation	3	0	0	0	3
29.	Avionics	3	0	0	0	3
30.	Aircraft Rules and Regulation	3	0	0	0	3
31.	3-D Printing Technology	3	0	0	0	3
32.	Smart Manufacturing	3	0	0	0	3
33.	Machine learning and AI	3	0	0	0	3
34.	Industrial Aerodynamics	3	0	0	0	3
35.	Rocket and Missile	3	0	0	0	3
36.	Aircraft Microprocessor and Applications	3	0	0	0	3

OPEN ELECTIVE

S.No	COURSE	L	T	P	C
1	Basic Aeronautical Engineering	3	0	0	3
2	Aircraft Systems and Engines	3	0	0	3
3	Rockets and Space Technology	3	0	0	3
4	Aircraft Materials and Applications	3	0	0	3
5	Aircraft Communication and Navigation System	3	0	0	3
6	Fundamentals of UAV	3	0	0	3