

Rashtreeya Sikshana Samithi Trust
R.V COLLEGE OF ENGINEERING, BENGALURU-560059
(Autonomous Institution affiliated to VTU, Belagavi)



B.E-AEROSPACE ENGINEERING
I -VIII Semester
2016 Scheme

R V College of Engineering, Bengaluru-560059
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First Semester Credit Scheme for Physics Cycle

(COMMON TO ALL PROGRAMS)

Sl. No.	Course Code	Course Title	BoS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA11	Applied Mathematics-I	Maths	3	1	0	1	5
2	16PH12	Engineering Physics (Theory and Practice)	Physics	4	0	1	0	5
3	16CV13	Elements of Civil Engineering	CV	4	1	0	0	5
4	16ME14	Computer Aided Engineering Drawing (Theory and Practice)	ME	1	0	2	0	3
5	16EE15	Elements of Electrical Engineering	EE	4	0	0	1	5
6	16HSC16	Constitution of India and Legal Studies for Engineers	HSS	2	0	0	0	2
7	16HSK17*	Kannada	HSS	1	0	0	0	0
		Total No. of Credits						25
		No. of Hrs.		19	04	06	08**	29

***Mandatory Audit Course 1 Hr per Week**

****Non Contact Hours**

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First Semester Credit Scheme for Chemistry Cycle

(COMMON TO ALL PROGRAMS)

Sl. No.	Course Code	Course Title	BoS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA11	Applied Mathematics-I	Maths	3	1	0	1	5
2	16CH12	Engineering Chemistry (Theory and Practice)	Chemistry	4	0	1	0	5
3	16CS13	Programming in C (Theory and Practice)	CS	4	0	1	0	5
4	16EC14	Basics of Electronic Engineering	ECE	4	0	0	1	5
5	16ME15	Basics of Mechanical Engineering (Theory and Practice)	ME	4	0	1	0	5
6	16HSE16*	Professional Practice-I (Communicative English)	HSS	2	0	0	0	0
		Total No. of Credits						25
		No. of Hrs.		21	02	06	08**	29

***Mandatory Audit Course 1 Hr per Week**

****Non Contact Hours**

1Hr. Theory=1 Credit

2Hrs. Practical=1 Credit

2Hrs. Tutorial=1 Credit

4Hrs. SS(EL)=1 Credit

R V College of Engineering, Bengaluru-560059
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Second Semester Credit Scheme for Physics Cycle

(COMMON TO ALL PROGRAMS)

Sl. No.	Course Code	Course Title	BoS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA21	Applied Mathematics-II	Maths	3	1	0	1	5
2	16PH22	Engineering Physics (Theory and Practice)	Physics	4	0	1	0	5
3	16CV23	Elements of Civil Engineering	CV	4	1	0	0	5
4	16ME24	Computer Aided Engineering Drawing (Theory and Practice)	ME	1	0	2	0	3
5	16EE25	Elements of Electrical Engineering	EE	4	0	0	1	5
6	16HSC26	Constitution of India and Legal Studies for Engineers	HSS	2	0	0	0	2
7	16HSK27*	Kannada*	HSS	1	0	0	0	0
		Total No. of Credits						25
		No. of Hrs.		19	04	06	08**	29

*Mandatory Audit Course 1 Hr per Week

**Non Contact Hours

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Second Semester Credit Scheme for Chemistry Cycle
(COMMON TO ALL PROGRAMS)

Sl. No.	Course Code	Course Title	BoS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA21	Applied Mathematics-II	Maths	3	1	0	1	5
2	16CH22	Engineering Chemistry (Theory and Practice)	Chemistry	4	0	1	0	5
3	16CS23	Programming in C (Theory and Practice)	CS	4	0	1	0	5
4	16EC24	Basics of Electronic Engineering	ECE	4	0	0	1	5
5	16ME25	Basics of Mechanical Engineering (Theory and Practice)	ME	4	0	1	0	5
6	16HSE26*	Professional Practice-I (Communicative English)	HSS	2	0	0	0	0
		Total No. of Credits						25
		No. of Hrs.		21	02	06	08**	29

***Mandatory Audit Course 1 Hr per Week**

****Non Contact Hours**

1Hr. Theory=1 Credit

2Hrs. Practical=1 Credit

2Hrs. Tutorial=1 Credit

4Hrs. SS(EL)=1 Credit

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Third Semester Credit Scheme

Sl. No.	Course Code	Course Title	BoS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA31C	Applied Mathematics-III	Maths	3	1	0	0	4
2	16EM32	Engineering Materials #	ME	2	0	0	0	2
3	16AS33	Introduction to Aerospace Engineering	AS	3	0	0	1	4
4	16AS34	Thermodynamics	AS	3	0	1	1	5
5	16AS35	Mechanics of Fluids	AS	4	0	1	0	5
6	16AS36	Structural Mechanics	AS	3	0	1	1	5
7	16DMA37	Bridge Course Mathematics-I*	Maths	2	0	0	0	0
		Total No. of Credits		20	1	3	3	25
		No. of Hrs.		18+2*	2	6	12**	40

*Mandatory Audit course for lateral entry diploma students

**Non contact hours

ME/IM/AS Common

1Hr. Theory= 1 credit

2Hrs. Practical=1credit

2Hrs. Tutorial=1 credit

4Hrs. SS(EL) = 1 Credit

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Fourth Semester Credit Scheme

Sl. No	Course Code	Course Title	BOS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16MA41C	Applied Mathematics IV	Maths	3	1	0	0	4
2	16ET42	Environmental Technology [#]	BT	2	0	0	0	2
3	16AS43	Aerodynamics (Theory & Practice)	AS	3	0	1	0	4
4	16AS44	Aerospace Structures (Theory & Practice)	AS	3	0	1	1	5
5	16AS45	Kinematics and Dynamics of Machines	AS	3	0	0	1	4
6	16AS46	Manufacturing Technology (Theory & Practice)	AS	3	0	1	1	5
7	16HSE47	Professional Practice-II	HSS	0	0	0	0	1
8	16DCS47	Bridge Course in C Programming **	CSE	2	0	0	0	0
		Total No. of Credits		17	1	3	3	25
		No. Of Hrs.		17+2*	2	6	12**	41

*Mandatory Audit course for lateral entry diploma students **Non contact hours

\$ 3 days (18 Hrs) in 3RD semester and 3 days (18 Hrs) in 4th semester, in the event of student not able to take the regular allotment, may have to complete this credit by attending other branch program.

BT, CV, CH, Chemistry will handle classes

1Hr. Theory= 1 credit

2Hrs. Practical=1credit

2Hrs. Tutorial=1 credit

4Hrs. SS(EL) = 1 Credit

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Fifth Semester Credit Scheme

Sl. No	Course Code	Course Title	BOS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16HSI51	IPR & Entrepreneurship	HSS	3	0	0	0	3
2	16AS52	Flight Mechanics (Theory & Practice)	AS	3	0	1	1	5
3	16AS53	Gas Dynamics (Theory & Practice)	AS	3	0	1	0	4
4	16AS54	Mechanics of composite structures	AS	3	0	0	1	4
5	16AS55	Finite Element Methods	AS	3	0	1	0	4
6	16AS5AX	Elective A (PE)	AS	3	0	0	1	4
7	16GB5XX	Elective B (OE)	AS	4	0	0	0	4
		Total No. of Credits		22	0	3	3	28
		No. Of Hrs.		22	0	6	12**	40

**Non contact hours

Elective A (PE)		Elective B (OE)	
16AS5A1	Experimental Aerodynamics	16GB5XX	Basics of Aerospace Engineering
16AS5A2	Fatigue & Fracture Mechanics		
16AS5A3	Aerospace Reliability and Quality Control		
16AS5A4	Numerical Methods		

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Sixth Semester Credit Scheme

Sl. No.	Course Code	Course Title	BOS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16HEM61	Foundations of Management & Economics	HSS	2	0	0	0	2
2	16AS62	Aerospace Propulsion (Theory & Practice)	AS	3	0	1	0	4
3	16AS63	Vibration Engineering (Theory & Practice)	AS	3	0	1	1	5
4	16AS64	Aircraft Instrumentation (Theory & Practice)	AS	3	0	1	1	5
5	16AS6CX	Elective C (PE)	AS	3	0	0	1	4
6	16AS6DX	Elective D (PE)	AS	4	0	0	0	4
7	16GE6XX	Elective E(O E)		3	0	0	0	3
8	16HSE68	Professional Practice-III (Employability Skills and Professional Development of Engineers)\$	HSS	1	0	0	0	1
		Total No. of Credits		22	0	3	3	28
		No. Of Hrs.		22	0	6	12**	40

\$\$ 3 days (18 Hrs) in 5th semester and 3 days (18 Hrs) in 6th semester **Non contact hours

Elective C (PE)	Elective Title	Elective D (PE)	Elective Title	Elective E (OE)	Elective Title
16AS6C1	Computational Fluid Dynamics	16AS6D1	Boundary Layer Theory	16GE6XX	Aircraft Systems
16AS6C2	Cryogenics	16AS6D2	Experimental Stress Analysis		
16AS6C3	Hydraulics and Pneumatics	16AS6D3	Fundamentals of Astrophysics		
16AS6C4	Advanced Material Technology	16AS6D4	Spacecraft Design		
16AS6C5	Non Destructive Testing and Evaluation	16AS6D5	Combustion & Heat Transfer		

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Seventh Semester Credit Scheme

Sl. No	Course Code	Course Title	BOS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16AS71	Control Engineering	AS	3	0	0	0	3
2	16AS72	Aircraft Stability & control	AS	3	0	0	0	3
3	16AS73	Avionics	AS	3	0	1	0	4
4	16AS74	Mini Project	AS	3	0	0	0	3
5	16AS7FX	Elective F (PE)	AS	4	0	0	0	4
6	16AS7GX	Elective G(PE)	AS	4	0	0	0	4
7	16GH7XX	Elective H (OE)	AS	3	0	0	0	3
		Total No. of Credits		23	0	1	0	24
		No. Of Hrs.		23	0	2	0	25

* EI, EE, CV, EC, ME – 6 hrs. / week Minor Project.

Elective F (PE)	Elective Title	Elective G(PE)	Elective Title	Elective H (OE)	Elective Title
16AS7F1	Missile Aerodynamics	16AS7G1	Hypersonic Aerodynamics	16GH7XX	Unmanned Air Vehicles
16AS7F2	Operations Research	16AS7G2	Theory of Aeroelasticity		
16AS7F3	Space Dynamics	16AS7G3	Helicopter Dynamics		
16AS7F4	Smart Materials	16AS7G4	Flight Testing		
PE - PROFESSIONAL ELECTIVE			OE- OTHER ELECTIVES		

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Eighth Semester Credit Scheme

Sl. No.	Course Code	Course Title	BOS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	EL	
1	16XXP81	Major Project		0	0	16	0	16
2	16XXS82	Technical Seminar		0	0	2	0	2
3	16HSS83	Innovation and Social Skills	HSS	0	0	2	0	2
		Total No. of Credits		0	0	20	0	20
		No. Of Hrs.		0	0	40	0	40
