Rashtreeya Sikshana Samithi Trust

R.V COLLEGE OF ENGINEERING

(Autonomous Institution affiliated to VTU, Belagavi)

R.V. Vidyaniketan Post, Mysuru Road, Bengaluru – 560 059

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	6	8**	29

*Mandatory Audit course 1 Hr per week

** Non contact hours

SECOND SEMESTER CREDIT SCHEME FOR CHEMISTRY CYCLE

SEMESTER (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	2	6	8**	29

*Mandatory Audit course 2 Hrs per week

** Non contact hours

1Hr. Theory= 1 credit 2Hrs. Practical=1credit 2Hrs. Tutorial=1 credit 4Hrs. SS (EL) = 1 Credit

THIRD SEMESTER								
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	16EM32B	Engineering Materials #	ME	2	0	0	0	2
3	16ME33	Mechanics of Materials	ME	3	1	1	0	5
4	16IM34	Principles of Fluid Mechanics and Thermodynamics	IEM	3	0	0	1	4
5	16IM35	Measurements & Metrology	IEM	3	0	1	1	5
6	16IM36	Manufacturing Processes	IEM	3	0	1	1	5
7	16DMA37	Bridge Course Mathematics	Maths	2	0	0	0	0
		Total No. of Credits						**25**
		No. Of Hrs.		**17**	**4**	**6**	**12****	**39**

*Mandatory Audit course for lateral entry diploma students

**Non contact hours

FOURTH SEMESTER								
Sl. No	**Course Code**	**Course Title**	**BOS**	**Credit Allocation**				**Total Credits**
				Lecture	**Tutorial**	**Practical**	**SS (EL)**	
1	16IM41	Basic of Machine Design & Drawing	IEM	3	0	1	0	4
2	16ET42	Environmental Technology[#]	BT	2	0	0	0	2
3	16IM43	Engineering Statistics	IEM	3	1	0	1	5
4	16IM44	Computer Integrated Manufacturing	IEM	3	0	1	1	5
5	16IM45	Design of Work Systems	IEM	3	0	1	0	4
6	16IM46	Operations Research	IEM	3	1	0	1	5
7	16HS47	Professional Practice-II (Team Work and Professional Ethics)	HSS	0	0	0	0	1
8	16DCS48	Bridge Course C Programming **	CSE	2	0	0	0	0
		Total No. of Credits						**26**
		No. Of Hrs.		**17**	**4**	**6**	**12****	**39**

*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

FIFTH SEMESTER								
Sl. No	**Course Code**	**Course Title**	**BOS**	**Credit Allocation**				**Total Credits**
				Lecture	**Tutorial**	**Practical**	**SS (EL)**	
1	16HEM51	Foundations of Management & Economics	HSS	2	0	0	0	2
2	16IM52	Industrial Ergonomics	IEM	3	0	1	0	4
3	16IM53	Quality and Reliability Engineering	IEM	3	1	0	0	4
4	16IM54	Simulation Modelling and Analysis	IEM	3	0	0	1	4
5	16IM55	Operations Management	IEM	3	0	1	0	4
6	16IM5AX	Elective A (PE)	IEM	3	0	0	1	4
7	16G5BX	Elective B (OE)	Respective BoS	4	0	0	0	4
		Total No. of Credits						**26**
		No. of Hrs.		**21**	**2**	**4**	**8****	**35**

**Non contact hours

Programs	**Semester**	**Course Code/ Course Title**	**Semester**	**Course Code / Course Title**
EC,CS,EE,IS,TE	5	**16HSI51 -** IPR & Entrepreneurship	6	**16HEM61 -** Foundations of Management and Economics
ME,CH,IM,EI,CV,BT,AS	5	**16HEM51-** Foundations of Management and Economics	6	**16HSI61 -** IPR & Entrepreneurship

Elective A (PE)	**Elective Title**	**Elective B (OE)**
16IM5A1	Advanced Manufacturing Processes	16G5BXX
16IM5A2	Methodologies for Quality Improvement	
16IM5A3	Advanced Operations Research	
16IM5A4	Marketing Management & Research	
16IM5A5	Software Engineering & Testing	

SIXTH SEMESTER								
Sl. No.	**Course Code**	**Course Title**	**BOS**	**Credit Allocation**				**Total Credits**
				Lecture	**Tutorial**	**Practical**	**SS (EL)**	
1	16HSI61	Intellectual Property Rights & Entrepreneurship	HSS	3	0	0	0	3
2	16IM62	Enterprise Information Systems	IEM	3	0	0	1	4
3	16IM63	Facilities Planning and Design	IEM	3	0	1	0	4

4	16IM64	Supply Chain & Logistics Management	IEM	3	0	1	0	4
5	16IM6CX	Elective C (PE)	IEM	3	0	0	1	4
6	16IM6DX	Elective D (PE)	IEM	4	0	0	0	4
7	16G6XX	Elective E(O E)	Respective BOS	3	0	0	0	3
8	16HS68	Professional Practice-III (Employability Skills and Professional Development of Engineers)$$	HSS	0	0	0	0	1
		Total No. of Credits						**27**
		No. of Hrs.		**22**	**0**	**4**	**8****	**34**

$$ 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)
16IM6C1	Digital Manufacturing	16IM6D1	Systems Engineering	16G6BXX
16IM6C2	Services Operations Management	16IM6D2	Cognitive Ergonomics	
16IM6C3	Reliability Engineering	16IM6D3	Design of Experiments	
16IM6C4	Financial Management	16IM6D4	Human Resource Management & Development	
16IM6C5	Data Mining Technologies	16IM6D5	E-Commerce	
16IM6C6	3-D Metrology	16IM6D6	User Interface Design	

SEVENTH SEMESTER

Sl. No	Course Code	Course Title	BOS	Credit Allocation				Total Credits
				Lecture	Tutorial	Practical	SS (EL)	
1	16IM71	Principles of Soft Computing	IEM	3	0	0	0	3
2	16IM72	Financial Accounting and Costing	IEM	3	0	0	1	4
3	16IM73	Product Design and Development	IEM	3	0	1	0	4
4	16IM74	Foundations of Business Analytics	IEM	3	1	0	0	4
5	16IM7FX	Elective F (PE)	IEM	4	0	0	0	4
6	16IM7GX	Elective G(PE)	IEM	4	0	0	0	4
7	16GH7XX	Elective H(OE)	Respective BoS	3	0	0	0	3
		Total No. of Credits						**26**

		No. Of Hrs.		**23**	**2**	**2**	**4**	**31**

* 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
16IM7F1	Industry 4.0 – A Growth in Manufacturing	16IM7G1	Additive Manufacturing Methods	16GH7XX	
16IM7F2	Retail Supply Chain Management	16IM7G2	Lean Manufacturing Systems		
16IM7F3	Big Data Analytics	16IM7G3	Engineering Optimization		
16IM7F4	Technology Management	16IM7G4	Energy Management		
16IM7F5	Supply Chain Technologies	16IM7G5	Predictive Analytics		
PE - PROFESSIONAL ELECTIVE			**OE- OTHER ELECTIVES**		

EIGTH SEMESTER								
Sl. No.	**Course Code**	**Course Title**	**BOS**	**Credit Allocation**				**Total Credits**
				Lecture	**Tutorial**	**Practical**	**EL**	
1	16IMP81	Major Project	IEM	0	0	16	0	16
2	16IMS82	Technical Seminar & Internship	IEM	0	0	2	0	2
3	16HSS83	Innovation and Social Skills	HSS	0	0	2	0	2
		Total No. of Credits						20
		No. Of Hrs.		0	0	40	0	40

Electives

Stream	Group A	Group B	Group C	Group D	Group E	Group F	Group G	Group H
Manufacturing	16IM5A1 Advanced Manufacturing Processes	**16GB5XX Open Elective**	16IM6C1 Digital Manufacturing	16IM6D1 Lean Manufacturing Systems	**16GE6XX Open Elective**	16IM7F1-Industry 4.0 – A Growth in Manufacturing	16IM7G1 Additive Manufacturing Methods	**16GH7XX Open Elective**
Industrial engineering	16IM5A2 Methodologies for Quality Improvement		16IM6C2 Services Operations Management	16IM6D2 Cognitive Ergonomics		16IM7F2 Retail Supply Chain Management	16IM7G2 Systems Engineering	
Computing, modelling	16IM5A3 Advanced Operations Research		16IM6C3 Reliability Engineering	16IM6D3 Design of Experiments		16IM7F3 Big Data Analytics	16IM7G3 Engineering Optimization	
Operations / Functional areas management	16IM5A4 Marketing Management & Research		16IM6C4 Financial Management	16IM6D4 Human Resource Management & Development		16IM7F4 Technology Management	16IM7G4 Energy Management	
Data and analytics technologies	16IM5A5 Software Engineering & Testing		16IM6C5 Data Mining Technologies	16IM6D5 E-Commerce		16IM7F5 Supply Chain Technologies	16IM7G5 Predictive Analytics	
Contemporary / emerging areas			16IM6C6 3-D Metrology	16IM6D6 User Interface Design				

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B.E- Industrial Engineering and Management

I semester

Applied Mathematics- I

Engineering Physics (Theory and Practice)

Elements of civil Engineering

Computer Aided Engineering Drawing (Theory and Practice)

Elements of Electrical Engineering

Constitution of India and Legal Studies for Engineers

Kannada

II semester

Applied Mathematics-II

Engineering Chemistry (Theory and Practice)

Programming in C (Theory and Practice)

Basics of Electronic Engineering

Basics of Mechanical Engineering (Theory and Practice)

Professional Practice-I (Communicative English)

III semester

Applied Mathematics-III

Engineering Materials

Principles of Fluid Mechanics and Thermodynamics

Mechanics of Materials

Measurements & Metrology

Manufacturing Processes

Bridge Course Mathematics (For lateral entry only)

IV semester

Basic of Machine Design & Drawing

Environmental Technology

Engineering Statistics

Computer Integrated Manufacturing

Design of Work Systems

Operations Research

Professional Practice-II (Team Work and Professional Ethics)

Bridge Course C Programming (For lateral entry only)

V Semester

Foundations of Management & Economics

Industrial Ergonomics

Quality and Reliability Engineering

Simulation Modelling and Analysis

Operations Management

Elective A (Program Elective)

Elective B (Open Elective)

VI Semester

Intellectual Property Rights & Entrepreneurship

Enterprise Information Systems

Facilities Planning and Design

Supply Chain & Logistics Management

Elective C (Program Elective)

Elective D (Program Elective)

Elective E (Open Elective)

Professional Practice-III (Employability Skills and Professional Development of Engineers)$$

VII Semester

Principles of Soft Computing

Financial Accounting and Costing

Product Design and Development

Foundations of Business Analytics

Elective F (Program Elective)

Elective G (Program Elective)

Elective H (Open Elective)

VIII Semester

Major Project

Technical Seminar & Internship

Innovation and Social Skills