

### Semester-I

Course Code	Course name	Contact Hours (L-T-P)	Credits
PHY 102	Physics-II Introduction to Engineering Electromagnetics	3-1-2	13
CY 101	Chemistry-I	2-1-2	10
MA 101	Engineering Maths- I	3-1-0	11
CSO 101	Computer Programming	3-1-2	13
ME 106	Manufacturing Practice-II	0-0-3	03
ME 104	Engineering Drawing	1-0-3	06
H 101	Universal Human Values - I: Self and Family	1-1-0	05
	Total	<b>13-5-12</b>	<b>61</b>
HL 101	Basic English	2-0-1	<b>07</b>
	<b>Total</b>	<b>15-5-13</b>	<b>68</b>
<b>GY1</b>	# Elementary Physical Education	0-1-3	05

### Semester-II

Course Code	Course Name	Contact Hours (L-T-P)	Credits
MA 203	Mathematical Methods	3-1-0	11
MO 201	Material Science	3-1-0	11
EO 102	Fundamentals of Electronics & Instrumentation Engineering*	3-1-2	13
EE 101	Electrical Circuits and Measurement	3-1-2	13
ME 105	Manufacturing Practice – I	0-0-3	03
H 105	Philosophy#	2-1-0	08
H 106	Education & Self#		
	<b>Total</b>	<b>14-5-7</b>	<b>59</b>
PE 102	Elementary Physical Education/Creative Practice #	0-1-3	<b>05</b>

\*Multicore subject offered by CSE Dept. to Mathematical Sciences

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**Semester-III**

<b>Course Code</b>	<b>Course name</b>	<b>Contact Hours (L-T-P)</b>	<b>Credits</b>
MA 201	Numerical Techniques	3-1-0	11
CMO 101	Basics of Mechanical Engineering	3-1-0	11
EO 201	Network Analysis & Synthesis	3-0-2	11
EE 221	DC Machines & Transformer	3-1-2	13
EE 261	Electrical Engineering Practice	1-0-2	05
H 103	Development of Societies#	2-1-0	08
H 104	History and Civilization#		
	<b>Total</b>	<b>15-4-6</b>	<b>59</b>
CP XXX	Music/Dance/Painting/Sculpture/Advertising		

**Semester-IV**

<b>Course Code</b>	<b>Course Name</b>	<b>Contact Hours (L-T-P)</b>	<b>Credits</b>
MA 202	Probability and Statistics	3-1-0	11
EE 241	Power Transmission & Distribution	3-1-2	13
EE 231	Power Electronic Devices & Converters	3-1-2	13
EE 211	Linear Control Systems	3-1-2	13
EE 272	Exploratory Project	0-0-5	05
H 102	Universal Human Value-II #	1-1-0	05
	<b>Total</b>	<b>13-5-11</b>	<b>60</b>

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### Semester-V

Course Code	Course Name	Contact Hours (L-T-P)	Credits
EO 301	Digital Circuits & Systems*	3-0-2	11
EE 342	Power System Protection and Switchgear	3-0-2	11
EE 322	Synchronous and Induction Machines	3-0-2	11
OE-1	Open Elective-1	3-0-0	09
HU/LM	Humanities/Language & Management	3-0-0	09
<b>Total</b>		<b>15-0-6</b>	<b>51</b>
EE 381	Stream Project (Hons.)	<b>0-0-10</b>	10

### Semester-VI

Course Code	Course Name	Contact Hours (L-T-P)	Credits
EE 343	Power System Analysis & Control	3-0-2	11
EE 332	Analysis & Applications of Power Electronic Converters	3-0-2	11
EE 323	Condition Monitoring and energy conservation	3-0-0	09
EE 312	Physical significance of Mathematical methods		
EE 345	Artificial Intelligence		
EE 324	Analysis & Control of Electric Drives		
OE-2	Open Elective-2	3-0-0	09
EE 372	UG Project	0-0-10	10
HU/LM	Humanities/Language & Management\	3-0-0	09
<b>Total</b>		<b>15-0-14</b>	<b>59</b>
EE 382	Stream Project (Hons.)	<b>0-0-10</b>	10

### Semester-VII

Course Code	Course Name	Contact Hours (L-T-P)	Credits
EE 401	Design & Simulation of Electrical Systems (PS, CS, MD & PE)	0-0-8	08
EE 413	Digital Control System	3-0-0	09
EE 446	EHV AC & DC Transmission		
EE 403	Energy Technologies		
EE 425	Special Electrical machines		
EE 433	Converter Applications		
OE-3	Open Elective-3	3-0-0	09
EE 471	UG Project	0-0-10	10
HU/LM	#Humanities/Language & Management^^	3-0-0	09
	<b>Total</b>	<b>9-0-18</b>	<b>45</b>
EE 481	<b>Stream Project (Hons.) @</b>	<b>0-0-10</b>	10

### Semester-VIII

Course Code	Course Name	Contact Hours (L-T-P)	Credits
EE 447	High Voltage Engineering	3-0-2	11
EE 414	Optimal and Adaptive control System	3-0-0	09
EE 427	Electric Utilization & Traction	3-0-0	
EE 434	Design of Power Electronic Converters	3-0-0	
EE 448	Power System Deregulation	3-0-0	
EE 415	Special Topics in Control Systems	3-0-0	09
EE 426	Semiconductor Controlled Drives	3-0-0	
EE 449	Special Topics in Power Systems	3-0-0	
OE-4	Open Elective-4	3-0-0	09
HU/LM	#Humanities/Language & Management^^	3-0-0	09

Course Code	Course Name	Contact Hours (L-T-P)	Credits
	<b>Total</b>	<b>15-0-2</b>	<b>47</b>
EE 482	Stream Project (Hons.) @	<b>0-0-10</b>	10

### Appendix-A

List of Stream/Non-stream and Open Elective Courses  
1. B.Tech. (CSE) Streams Electives (Semester V Onwards):

#### Streams

- Artificial Intelligence and Computer Vision (AICV)
- High performance Computing and Data Engineering (HPCDE)

Stream Elective (DE) Courses  
(Contact Hours L:T:P=3:0:0)(Credits:09)

Stream Elective No.	AICV Electives		HPCDE Electives	
	Course Code	Subject	Course Code	Subject
Stream Elective-I (V Semester)	DE. CSE311.16/ DE. CSE411.16	Intelligent Computing (IC)/ Natural Language Processing (NLP)	DE. CSE322.16	Data Mining
Stream Elective-II (VI Semester)	DE. CSE352.16/ DE. CSE445.17	Computer Vision/ Applications of Natural Language Processing (NLP)	DE. CSE371.16	Parallel Computing
Stream Elective-III (VII Semester)	DE. CSE443.16/ DE. CSE342.16	Natural Language Processing (NLP)/  Intelligent Computing (IC)	DE. CSE472.17	Distributed Computing

Stream Elective-IV (VIII Semester)	DE.CSE454.17/ DE.CSE464.17/ DE.CSE456.17	Pattern Recognition/ Machine Learning/ Biometrics	DE.CSE464.17	Machine Learning
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**Note:** In VIIIth Semester, students from a specific stream are required to opt for any of the subject from the list of respective Stream Elective-IV. However, if a student from any stream wishes to study another DE from Electives-IV, he/she is allowed to opt for the same.

#### V Semester Open Elective OE-1 Courses

DE.CSE311.16	CSE342	Intelligent Computing	3	0	0	9
DE.CSE321.16	CSE321	Data Mining	3	0	0	9
DE.CSE411.16	CSE411	Natural Language Processing	3	0	0	9
DE.CSO303.16	CSO303	Ubiquitous Computing	3	0	0	9

#### VI Semester Open Elective OE - 2 Courses

DE. CSE352.16	CSE352	Computer Vision	3	0	0	9
DE. CSE371.16	CSE371	Parallel Computing	3	0	0	9
DE.CSE445.17	CSE445	Applications of Natural Language Processing	3	0	0	9

#### VII Semester Open Elective OE-3 Courses

DE.CSE342.16	CSE342	Intelligent Computing	3	0	0	9
DE.CSE443.16	CSE443	Natural Language Processing (NLP)	3	0	0	9
DE.CSE472.17	CSE472	Distributed Computing	3	0	0	9

#### VIII Semester Open Elective OE - 4 Courses

DE.CSE454.17	CSE454	Pattern Recognition	3	0	0	9
DE.CSE456.17	CSE456	Biometrics	3	0	0	9
DE.CSE464.17	CSE464	Machine Learning	3	0	0	9

**Any other subject that will be decided as Open Elective by the Department.**

**4-YR-B.Tech Programme (students admitted in July'2014)**

<b>S.N.</b>	<b>Cat.</b>	<b>Credit</b>	<b>Total</b>	<b>Deviation</b>
1.	IS	11(I)+13(I)+11(I)+11(II)+11(III)+11(IV)	68	Nil
2.	IE	13(I)+13(II)+11(III)+11(V)	48	Nil
3.	EP	03(I)+06(I)+09(II)+03(II)	21	Nil
4.	HU	05(I)+08(II)+08(III)+05(IV)+09(V)+09(VI)	44	Nil
5.	LM	09(VII)+09(VIII)	18	-2
6.	MC/DC	11(II)+09(III)+11(III)+09(III)+11(IV)+11(IV)+11(IV)+11(V) +11(V)+09(VI)+09(VI)+11(VI)+09(VII)+11(VIII)+03(VIII)	147	Nil
7.	DP	05(IV)+10(V-Stream)+05(VI)+10(VI)+10(VII)+10(VIII-Stream)	30/50	Nil
8.	DE	09(V)+09(VI)+09(VII)+09(VIII)	36	Nil
9.	OE	09(V)+ 09(VI)+09(VII)+09(VIII)	36	Nil
			448/468 (Regular/ Stream)	—