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**COURSE STRUCTURE  
AND  
DETAILED SYLLABUS**

**R16**

**Computer Science  
And Engineering**

**B.TECH. FOUR YEAR DEGREE COURSE**  
(Applicable for the students admitted into Academic Year 2016-17)  
(I – IV Years Syllabus)



**RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES**  
**Basar, Nirmal, Telangana - 504107**

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**COURSE STRUCTURE (R16) FOR B.TECH.(REGULAR)**  
**Applicable for the students of B.Tech. (Regular) from the Academic**  
**Year 2016-17 and onwards**

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**I. Semester-wise structure of curriculum**

**[L= Lecture, T = Tutorials, P = Practical& C = Credits]**

**Engineering I - Semester I [First Year-First Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	CS1101	Programming in C	4-0-0	4
2	CY1001	Chemistry	4-0-0	4
3	MA1101	Mathematics-I	4-0-0	4
4	ME1001	Engineering Mechanics	4-0-0	4
5	EC1101	Network Analysis	4-0-0	4
6	CS1701	Programming in C Lab	0-1-2	2
7	CY1601	Chemistry Lab	0-1-2	2
8	HS1101	FC - Communication Skills 1	2-0-0	1
		<b>TOTAL CREDITS</b>		<b>25</b>

**Engineering I - Semester II [First Year-Second Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	CS1201	Data structures	4-0-0	4
2	PH1001	Physics	4-0-0	4
3	MA1201	Mathematics-II	4-0-0	4
4	EC1208	Basic Electronics	4-0-0	4
5	HS1001	English	3-0-0	3
6	CS1802	Data structures Lab	0-1-2	2
7	PH1601	Physics Lab	0-1-2	2
8	HS1601	English lab	0-1-2	2
9	HS1201	Communication Skills-II	2-0-0	1
		<b>TOTAL CREDITS</b>		<b>26</b>

**Engineering II - Semester I [Second Year-First Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	MA2101	Discrete Structures	4-0-0	4
2	CS2101	Digital Logic Design	4-0-0	4
3	CS2102	Design & Analysis of Algorithms	4-0-0	4
4	CS2103	Scripting Languages	4-0-0	4
5	CS2104	Database Management Systems	4-0-0	4
6	CS2701	Digital Logic Design Lab	0-1-2	2
7	CS2704	Database Management Systems lab	0-1-2	2
8	EC2703	Basic Electronics Lab	0-1-2	2
9	HS2101	Soft Skills-I	2-0-0	1
10	CS2901	Seminar-I	0-0-1	1
		<b>TOTAL CREDITS</b>		<b>28</b>

**Engineering II - Semester II [Second Year-Second Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	MA2201	Probability and Statistics	4-0-0	4
2	CS2201	Computer Organization and Architecture	4-0-0	4
3	CS2202	Formal Languages and Automata Theory	4-0-0	4
4	CS2203	Object Oriented Programming	4-0-0	4
5	CS2801	Computer Organization and Architecture Lab	0-0-3	2
6	CS2803	Object Oriented Programming Lab	0-0-3	2
7	BSBE2001	Environmental Science	3-0-0	3
8	BM2201	Personality Development-I	2-0-0	1
9	CS2902	Seminar-II	0-0-1	1
		<b>TOTAL CREDITS</b>		<b>25</b>

**Engineering III - Semester I [Third Year-First Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	CS3101	Artificial Intelligence	4-0-0	4
2	CS3102	Compiler Design	4-0-0	4
3	CS3103	Operating Systems	4-0-0	4
4	CS3104	Web Technologies	4-0-0	4
5	EC3105	Microprocessor and Microcontrollers	4-0-0	4
6	CS3703	Operating Systems Lab	0-0-3	2
7	CS3704	Web Technologies Lab	0-0-3	2
8	BM3101	Personality Development-II	2-0-0	1
9	CS3901	Seminar-III	0-0-1	1
		<b>TOTAL CREDITS</b>		<b>26</b>

**Engineering III - Semester II [Third Year-Second Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	CS3201	Principle of Programming Languages	4-0-0	4
2	CS3202	Linux Programming	4-0-0	4
3	CS3203	Data Mining	4-0-0	4
4	CS3204	Computer Networks	4-0-0	4
5	CS3205	Software Engineering	4-0-0	4
6	CS3803	Data Mining Lab	0-0-3	2
7	CS3805	Software Engineering Lab	0-0-3	2
8	HS3201	Soft Skills-II	2-0-0	1
9	CS3902	Seminar-IV	0-0-1	1
10	CS3000	Comprehensive Viva-I		1
		<b>TOTAL CREDITS</b>		<b>27</b>

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**Engineering IV - Semester I [Fourth Year-First Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	CS3900	Summer Internship		6
2	BM4001	Managerial Economics & Financial analysis	4-0-0	4
3	CS4101	Mobile computing	4-0-0	4
4	CS4102	Information Security	4-0-0	4
5	CS4411	Elective-II(Data Analytics)	4-0-0	4
6	CS4418	Elective-II(Introduction to Block Chain Technology)	4-0-0	4
		TOTAL CREDITS		26

**Engineering IV - Semester II [Fourth Year-Second Semester] Curriculum**  
**Branch/Course: Computer Science Engineering**

S.NO	Course Code	Course	L-T-P	Credits
1	CS4800	Project		16
2	CS4000	Comprehensive Viva-II		1
3		Free Elective	3-0-0	3
		TOTAL CREDITS		20