

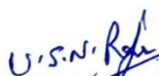
**GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A)
CHAITANYA NAGAR, RAJAHMUNDRY**

**Course Structure of
B.Tech. Programme in Computer Science and Engineering
Regulation: GRBT-20**

I Year I Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201HB101	BSC	Mathematics-I	3	0	0	3	30	70	100
2	201HB102	HSMC	Communicative English	3	0	0	3	30	70	100
3	201HB103a	BSC	Applied Physics	3	0	0	3	30	70	100
4	201CS104	ESC	Problem Solving & Programming in C	3	0	0	3	30	70	100
5	201CS105	ESC	Fundamentals of Digital Electronics	3	0	0	3	30	70	100
6	201HB196	MC	Environmental Science	2	0	0	0	30*	---	---
7	201HB111a	BSC	Applied Physics Laboratory	0	0	3	1.5	50	50	100
8	201CS112	ESC	Problem Solving & Programming in C Lab	0	0	3	1.5	50	50	100
9	201ME113c	ESC	Computer Engineering Workshop	2	0	2	1.5	50	50	100
Total				19	0	8	19.5	300	500	800


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Course Structure of
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I Year II Semester

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				L	T	P		Int.	Ext.	Total
1	201HB201	BSC	Mathematics-II	3	0	0	3	30	70	100
2	201HB202	BSC	Engineering Chemistry	3	0	0	3	30	70	100
3	201ME203	ESC	Engineering Graphics	1	0	4	3	30	70	100
4	201CS204	ESC	Data Structures	3	0	0	3	30	70	100
5	201CS205	ESC	Python Programming	3	0	0	3	30	70	100
6	201HB211	BSC	Engineering Chemistry Laboratory	0	0	3	1.5	50	50	100
7	201HB212	HSMC	Communicative English Lab	0	0	3	1.5	50	50	100
8	201CS213	ESC	Data Structures Lab	0	0	3	1.5	50	50	100
Total Credits				13	0	13	19.5	300	500	800


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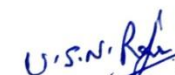
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II Year I Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201CS301	BSC	Mathematical Foundations of Computer Science	2	1	0	3	30	70	100
2	201CS302	PCC	Design and Analysis of Algorithms	3	0	0	3	30	70	100
3	201CS303	PCC	Computer Organization	3	0	0	3	30	70	100
4	201CS304	PCC	Object Oriented Programming through JAVA	3	0	0	3	30	70	100
5	201HB305	HSMC	Managerial Economics and Financial Analysis	3	0	0	3	30	70	100
6	201CS311	PCC	Data Analysis Lab	0	0	3	1.5	50	50	100
7	201CS312	PCC	Object Oriented Programming through JAVA Lab	0	0	3	1.5	50	50	100
8	201CS313	PCC	Linux and Shell Programming Lab	0	0	3	1.5	50	50	100
9	201CS381	SC	Web Application Development Using Full Stack Module -1	0	1	2	2	---	50	50
10	201CE391	MC	Constitution of India	2	0	0	0	30	70*	100
Total				18	2	11	21.5	330	620	950


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II Year II Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201CS401	BSC	Statistics with R Programming	2	1	0	3	30	70	100
2	201CS402	PCC	Formal Languages and Automata Theory	3	0	0	3	30	70	100
3	201CS403	PCC	Operating Systems	3	0	0	3	30	70	100
4	201CS404	PCC	Database Management Systems	3	0	0	3	30	70	100
5	201CS405	PCC	Software Engineering	3	0	0	3	30	70	100
6	201CS411	PCC	R Programming Lab	0	0	3	1.5	50	50	100
7	201CS412	PCC	Database Management Systems Lab	0	0	3	1.5	50	50	100
8	201CS413	PCC	Operating Systems & Software Engineering Lab	0	0	3	1.5	50	50	100
9	201CS481	SC	Web Application Development Using Full Stack Module -2	0	1	2	2	---	50	50
Total				14	2	11	21.5	300	550	850
#Honors/ Minor courses				4	0	0	4			
#After II B.Tech II Semester Summer Internship/ Mini Project-1 is mandatory. Evaluation should be III B.Tech I semester.										


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III Year I Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201CS501	PCC	Data Mining and Data Warehousing	3	0	0	3	30	70	100
2	201CS502	PCC	Compiler Design	3	0	0	3	30	70	100
3	201CS503	PCC	Computer Networks	3	0	0	3	30	70	100
4	201MB565a	OEC	Open Electives –I/ Job Oriented Elective a)Principles of Management	3	0	0	3	30	70	100
5	201CS564C	PEC	Professional Elective-I A) Natural Language Processing B) Data Science C) Artificial Intelligence D) Object Oriented Analysis & Design	3	0	0	3	30	70	100
6	201HB591	MC	Quantitative Aptitude and Reasoning	2	0	0	0	30	70	100
7	201CS581	SC	Web Application Development Using Full Stack Module -3	0	1	2	2	--	50	50
8	201CS511	PCC	Data Mining and Data Warehousing Lab	0	0	3	1.5	50	50	100
9	201CS512	PCC	Internetworking Protocol Lab	0	0	3	1.5	50	50	100
10	201CS521	PROJ	Summer Internship/ Mini Project-1	0	0	0	1.5	100	--	100
Total				17	1	8	21.5	380	570	950
#Honors/ Minor courses				4	0	0	4			


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**Course Structure of
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III Year II Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201CS601	PCC	Cryptography & Network Security	3	0	0	3	30	70	100
2	201CS602	PCC	Big Data Analytics	3	0	0	3	30	70	100
3	201CS603	PCC	Machine Learning	3	0	0	3	30	70	100
4	201XX665x	OEC	Open Electives –II/ Job Oriented Elective	3	0	0	3	30	70	100
5	201CS664X	PEC	Professional Elective-II A) Software Testing Methodologies B) E-Commerce C) Mean Stack Technologies D) Advanced Data Structures	3	0	0	3	30	70	100
6	201MB691	MC	IPR and Patents	2	0	0	0	30	70	100
7	201HB681	SC	English for Career	0	1	2	2	--	50	50
8	201CS611	PCC	Cryptography & Network Security Lab	0	0	3	1.5	50	50	100
9	201CS612	PCC	Big Data Analytics Lab	0	0	3	1.5	50	50	100
10	201CS613	PCC	Machine Learning using Python Lab	0	0	3	1.5	50	50	100
Total				17	1	11	21.5	330	620	950
Honors/Minor courses				4	0	0	4			
Industrial/ Research Internship/ Mini Project-2(Mandatory) after third year to be evaluated during VII semester										


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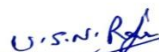
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IV Year I Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201CS761A-D	PEC	Professional Elective-III A) Distributed Systems B) Cloud Computing C) Mobile Computing D) Ad-hoc and Sensor Networks	3	0	0	3	30	70	100
2	201CS762A-D	PEC	Professional Elective-IV A) Software Project Management B) Software Quality Management C) Cyber Security & Forensics D) MOOCS-NPTEL/SWAYAM	3	0	0	3	30	70	100
3	201CS763A-D	PEC	Professional Elective-V A) Deep Learning Techniques B) Soft Computing C) Block Chain Technologies and its Applications D) MOOCS-NPTEL/SWAYAM	3	0	0	3	30	70	100
4	201XX764x	OEC	Open Electives-III/ Job Oriented Elective	3	0	0	3	30	70	100
5	201XX765x	OEC	Open Electives -IV/ Job Oriented Elective	3	0	0	3	30	70	100
6	201MB796X	HSMC	UHV 2 - Understanding Harmony	3	0	0	3	30	70	100
7	201CS707	SC	Deep Learning using Python	0	1	2	2	---	50	50
8	201CS721	PROJ	Industrial/ Research Internship/ Mini Project-2	0	0	0	3	100	---	100
Total				18	1	2	23	280	470	750
Honors/Minor courses				4	0	0	4			

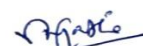

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IV Year II Semester

S. No	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	201CS841	PROJ	Project Project work, Seminar, Internship	0	0	0	12	60	140	200
Total				0	0	0	12	60	140	200


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Courses for Open Elective

Branch	Open Elective-I (III B.Tech I Sem)	Open Elective-II (III B.Tech II Sem)
CE	(201CE565a)Environmental Pollution & Control	(201CE665a)Solid Waste Management
EEE	(201EE565a)Fundamentals of Utilization of Electrical Energy	(201EE665a)Concepts of Power System Engineering
ME	(201ME565a)Robotics	(201ME665a)Introduction to MEMS
ECE	(201EC565a)Microprocessors and Microcontrollers	(201EC665a)IOTand its Applications
CSE	(201CS565a)Foundations of Operating Systems	(201CS665a)Fundamentals of Databases
MM	(201MM565a)Elements of Mining Technology	(201MM665a)Open Pit Slope Analysis and Design
AME	(201AM565a)Basic Automobile Engineering	(201AM665a)Hybrid and Electric Vehicles
PET	(201PT565a)Fundamentals of Petroleum Engineering	(201PT665a)Basic Concepts in Petroleum Drilling Engineering
MBA	(201MB565a)Principles of Management	(201MB665a)Operations Management


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Courses for Open Elective

Branch	Open Elective -III (IV B.Tech I Sem)	Open Elective-IV (IV B.Tech I Sem)
CE	(201CE764a) Building Technology	(201CE765a) Safety Engineering
EEE	(201EE764a) Fundamentals of Smart Grid Technologies	(201EE765a) Basics of Electrical Measurements and Instrumentation
ME	(201ME764a) Nano Technology and its Applications	(201ME765a) Introduction to Operations Research
ECE	(201EC764a) Embedded Systems	(201EC765a) Digital Image Processing
CSE	(201CS764a) Information Security	(201CS765a) Human Computer Interaction
MM	(201MM764a) Mining and its Importance	(201MM765a) Remote Sensing & GIS in Mining
AME	(201AM764a) Modern Vehicle Technology	(201AM765a) Alternative Energy Resources for Automotives
PET	(201PT764a) Introduction to Petroleum Production Engineering	(201PT765a) Basic Concepts in Reservoir Engineering
MBA	(201MB764a) Entrepreneurship for Engineers	(201MB765a) Digital Marketing


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