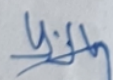
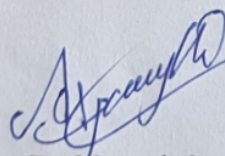


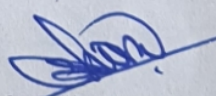
GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A), Rajahmundry
DEPARTMENT OF MINING ENGINEERING
GRBT-20 Course Structure

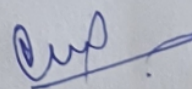
I Year I Semester

S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	BSC	201HB101	Mathematics-I	3	0	0	3	30	70	100
2	BSC	201HB103b	Engineering Chemistry	3	0	0	3	30	70	100
3	HSMC	201HB102	Communicative English-I	3	0	0	3	30	70	100
4	ESC	201ME105	Engineering Graphics	1	0	4	3	30	70	100
5	ESC	201EE104	Basic Electrical & Electronics Engineering	3	0	0	3	30	70	100
6	ESC	201ME113d	Basic Engineering Workshop	0	0	3	1.5	50	50	100
7	BSC	201HB111b	Engineering Chemistry Laboratory	0	0	3	1.5	50	50	100
8	ESC	201EE112	Basic Electrical & Electronics Engineering Laboratory	0	0	3	1.5	50	50	100
Total				13	0	13	19.5	300	500	800
Credit distribution		BSC = 7.5	HSMC = 3	ESC = 9						


 (Dr. B. S. Sastry)
 University Nominee

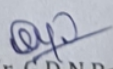

 (Dr. S. Jayanthu)
 Subject Expert

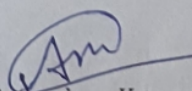

 (Mr. S. Venkata Chary)
 Industrial Expert


 (Dr. M.V.S Babu)
 Special Invitee Member

(Ms. P. N.V.L Sailaja)
 BOS-Member

(Mr. A Mohapatra)
 BOS-Member

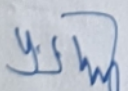

 (Mr. G D N Raju)
 BOS-Member

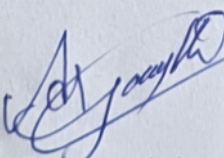

 (Mr. A. Sandeep Kumar)
 BOS-Chairman

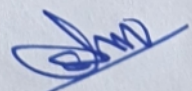
I Year II Semester

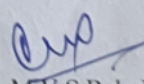
S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	BSC	201HB201	Mathematics-II	3	0	0	3	30	70	100
2	BSC	201HB202b	Engineering Physics	3	0	0	3	30	70	100
3	ESC	201CS204a	Fundamentals of Computer Programming	3	0	0	3	30	70	100
4	ESC	201ME203a	Engineering Mechanics	3	0	0	3	30	70	100
5	ESC	201ME205	Material Science and Metallurgy	3	0	0	3	50	50	100
6	ESC	201CS213a	Fundamentals of Computer Programming Lab	0	0	3	1.5	50	50	100
7	BSC	201HB211b	Engineering Physics Laboratory	0	0	3	1.5	50	50	100
8	HSMC	201HB212	Communicative English Lab	0	0	3	1.5	50	50	100
9	MC	201HB296	Environmental Science	2	0	0	0	30	70*	100
Total				17	0	9	19.5	350	550	900
Credit distribution		BSC = 7.5	HSMC = 10.5	ESC = 9		HSMC = 1.5		MC = 0		

* Internal evaluation only


 (Dr. B. S. Sastri)
 University Nominee

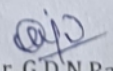

 (Dr. S. Jayanthu)
 Subject Expert

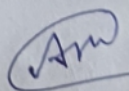

 (Mr. S. Venkata Chary)
 Industrial Expert


 (Dr. M.V.S Babu)
 Special Invitee Member

(Ms. P. N.V.L. Sailaja)
 BOS-Member

(Mr. A Mohapatra)
 BOS-Member


 (Mr. G D N Raju)
 BOS-Member

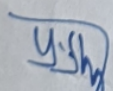
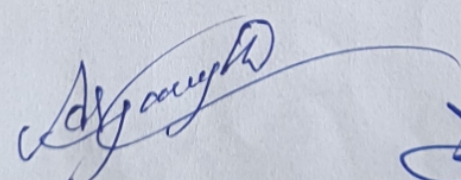
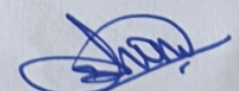
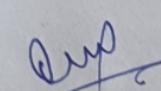
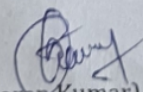
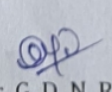
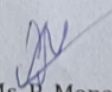
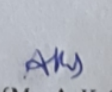
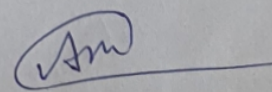

 (Mr. A. Sandeep Kumar)
 BOS-Chairman

GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A), Rajahmundry
DEPARTMENT OF MINING ENGINEERING
GRBT-20 Course Structure

II Year I Semester

S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	BSC	201HB301A	Probability & Statistics	3	0	0	3	30	70	100
2	PCC	201MM302	Mine Development	3	0	0	3	30	70	100
3	PCC	201MM303	Mine Surveying	2	1	0	3	30	70	100
4	PCC	201MM304	Mining Geology	3	0	0	3	30	70	100
5	PCC	201MM305	Mining Machinery	2	1	0	3	30	70	100
6	PCC	201MM311	Mine Surveying Laboratory	0	0	3	1.5	50	50	100
7	PCC	201MM312	Mining Geology Laboratory	0	0	3	1.5	50	50	100
8	PCC	201MM313	Mining Machinery Laboratory	0	0	3	1.5	50	50	100
9	SC	201CS381	Programming with Python	0	1	2	2	-	50	50
10	MC	201CE491	Constitution of India	2	0	0	0	30	70*	100
TOTAL				15	3	11	21.5	330	620	950
Credit distribution			BSC = 3	PCC = 16.5		SC = 2		MC=0		

* Internal evaluation only

 (Dr. B. S. Gastry) University Nominee	 (Dr. Singam Jayanthu) Subject Expert	 (Mr. S. Venkata Chary) Industrial Expert	 (Dr. M.V.S. Babu) Special Invitee Member
 (Dr. A. Charan Kumar) BOS-Member	 (Mr. G. D. N. Raju) BOS-Member	 (Ms. P. Manasa) BOS-Member	 (Mr. A. K. Sanjay) BOS-Member
 (Mr. A. Sandeep Kumar) BOS-Chairman			

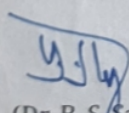
GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A), Rajahmundry
DEPARTMENT OF MINING ENGINEERING
GRBT-20 Course Structure

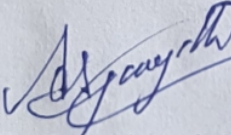
II Year II Semester

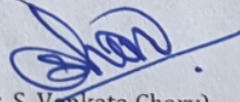
S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	ESC	201MM401	Mineral Processing	3	0	0	3	30	70	100
2	PCC	201MM402	Advanced Mine Surveying	2	1	0	3	30	70	100
3	PCC	201MM403	Surface Mining	3	0	0	3	30	70	100
4	PCC	201MM404	Underground Coal Mining	3	0	0	3	30	70	100
5	HSMC	201MM405	Mine Systems Engineering	2	1	0	3	30	70	100
6	ESC	201MM411	Mineral Processing Laboratory	0	0	3	1.5	50	50	100
7	PCC	201MM412	Advanced Mine Surveying Laboratory	0	0	3	1.5	50	50	100
8	PCC	201MM413	Engineering Geology Laboratory	0	0	3	1.5	50	50	100
9	SC	201MM481	CAD for Mining	1	0	2	2	-	50	50
TOTAL				14	2	11	21.5	300	550	850
Minor Course				4	0	0	4	30	70	100
Credit distribution			ESC = 4.5	PCC = 12		HSMC = 3	SC = 2			

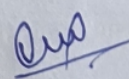
* Internal evaluation only

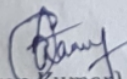
**At the end of Semester, students must complete summer internship, which will be evaluated in consecutive semester


 (Dr. B. S. Sastry)
 University Nominee

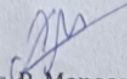

 (Dr. Singam Jayanthu)
 Subject Expert


 (Mr. S. Venkata Chary)
 Industrial Expert

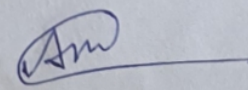

 (Dr. M.V.S. Babu)
 Special Invitee Member


 (Dr. A. Charan Kumar)
 BOS-Member


 (Mr. G. D. N. Raju)
 BOS-Member


 (Ms. P. Manasa)
 BOS-Member

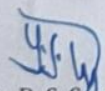

 (Mr. A. K. Sanjay)
 BOS-Member

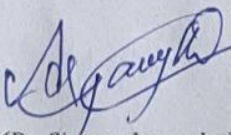

 (Mr. A. Sandeep Kumar)
 BOS-Chairman

III Year I Semester

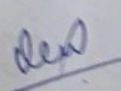
S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	PCC	201MM501	Mine Planning and Design	3	0	0	3	30	70	100
2	PCC	201MM502	Mine Ventilation	2	1	0	3	30	70	100
3	PCC	201MM503	Underground Metal Mining	2	1	0	3	30	70	100
4	PEC	201MM564B	Professional Elective-I	3	0	0	3	30	70	100
5	OEC		Open Elective-I	3	0	0	3	30	70	100
6	PCC	201MM511	Mine Planning and Design Laboratory	0	0	3	1.5	50	50	100
7	PCC	201MM512	Mine Ventilation Laboratory	0	0	3	1.5	50	50	100
8	SC	201HB581	English for Career	1	0	2	2	-	50	50
9	MC	201MB591	IPR and Patents	2	0	0	0	30	70*	100
10	PROJ	201MM521	Summer Internship -I	0	0	0	1.5	100	-	100
TOTAL				16	2	8	21.5	380	570	950
Minor Course				4	0	0	4	30	70	100
Credit distribution		PEC = 3	PCC = 12	OEC = 3	SC = 2	MC = 0	PROJ = 1.5			

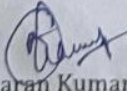
* Internal evaluation only

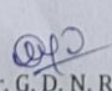

 (Dr. B. S. Sastry)
 University Nominee

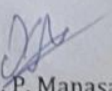

 (Dr. Singam Jayanthu)
 Subject Expert

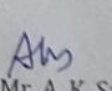

 (Mr. S. Venkata Chary)
 Industrial Expert

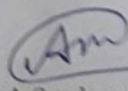

 (Dr. M.V.S. Babu)
 Special Invitee Member


 (Dr. A. Charan Kumar)
 BOS-Member


 (Mr. G. D. N. Raju)
 BOS-Member


 (Ms. P. Manasa)
 BOS-Member


 (Mr. A. K. Sanjay)
 BOS-Member


 (Mr. A. Sandeep Kumar)
 BOS-Chairman

GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A), Rajahmundry
DEPARTMENT OF MINING ENGINEERING
GRBT-20 Course Structure

III Year II Semester

S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	PCC	201MM601	Computer Applications in Mining	3	0	0	3	30	70	100
2	PCC	201MM602	Mine Legislation and General Safety	3	0	0	3	30	70	100
3	PCC	201MM603	Rock Mechanics	2	1	0	3	30	70	100
4	PEC	201MM664A	Professional Elective-II	3	0	0	3	30	70	100
5	OEC	201MM	Open Elective - II	3	0	0	3	30	70	100
6	PCC	201MM611	Computer Applications in Mining Laboratory	0	0	3	1.5	50	50	100
7	PCC	201MM612	Mine Rescue Laboratory	0	0	3	1.5	50	50	100
8	PCC	201MM613	Rock Mechanics Laboratory	0	0	3	1.5	50	50	100
9	SC	201MM681	GIS Applications in Mining	1	0	2	2	-	50	50
10	MC		Professional Ethics & Human Values	2	0	0	0	30	70*	100
TOTAL				17	1	11	21.5	330	620	950
Minor Course				4	0	0	4	30	70	100
Credit distribution		PEC = 3	PCC = 13.5	OEC = 3	SC = 2		MC = 0			

* Only internal evaluation

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(Dr. B. S. Sastry)
University Nominee

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Subject Expert

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Special Invitee Member

(Dr. A. Chakrab Kumar)
BOS-Member

(Mr. G. D. N. Raju)
BOS-Member

(Ms. P. Manasa)
BOS-Member

(Mr. A. K. Sanjay)
BOS-Member

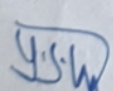
(Mr. A. Sandeep Kumar)
BOS-Chairman

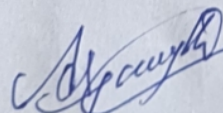
GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A), Rajahmundry
DEPARTMENT OF MINING ENGINEERING
GRBT-20 Course Structure

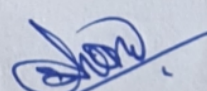
IV Year I Semester

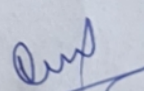
S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	PEC	201MM761B	Professional Elective - III	3	0	0	3	30	70	100
2	PEC	201MM762A	Professional Elective - IV	2	1	0	3	30	70	100
3	PEC	201MM763A	Professional Elective - V	3	0	0	3	30	70	100
4	OEC	201MB764a	Open Elective - III	2	1	0	3	30	70	100
5	OEC	201AM765a	Open Elective - IV	3	0	0	3	30	70	100
6	HSMC	201HB796	Humanities and Social Science Elective	3	0	0	3	30	70	100
7	SC	201MM781	Product Development	0	1	2	2	-	50	50
8	PROJ	201MM731	Summer Internship -II	0	0	0	3	100	-	100
TOTAL				16	3	2	23	280	470	750
Minor Course				4	0	0	4	30	70	100
Credit distribution		PEC = 9	OEC = 6	SC = 2	HSMC = 3	PROJ = 3	MC = 0			

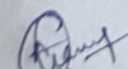
* Only internal evaluation


 (Dr. B. S. Sastry)
 University Nominee

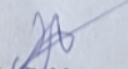

 (Dr. Singam Jayanthu)
 Subject Expert


 (Mr. S. Venkata Chary)
 Industrial Expert

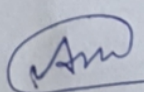

 (Dr. M.V.S. Babu)
 Special Invitee Member


 (Dr. A. Charan Kumar)
 BOS-Member


 (Mr. G. D. N. Raju)
 BOS-Member


 (Ms. P. Manasa)
 BOS-Member


 (Mr. A. K. Sanjay)
 BOS-Member


 (Mr. A. Sandeep Kumar)
 BOS-Chairman

IV Year II Semester

S. No.	Category	Course Code	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	PROJ	201MM841	Project (Project work, seminar and internship in industry)	0	0	0	12	60	140	200
TOTAL				0	0	0	12	60	140	200
Credit distribution				PROJ = 12						

(Dr. B. S. Sastry)
University Nominee

(Dr. Singam Jayanthu)
Subject Expert

(Mr. S. Venkata Chary)
Industrial Expert

(Dr. M.V.S. Babu)
Special Invitee Member

(Dr. A. Charan Kumar)
BOS-Member

(Mr. G. D. N. Raju)
BOS-Member

(Ms. P. Manasa)
BOS-Member

(Mr. A. K. Sanjay)
BOS-Member

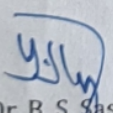
(Mr. A. Sandeep Kumar)
BOS-Chairman

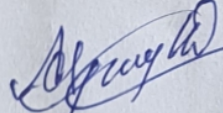
PROFESSIONAL ELECTIVES COURSES (PECs)

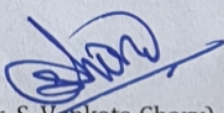
Elective – I	Geostatistics	Mine Transportation	Mine Management	Rock Excavation Engineering
Elective – II	Environmental Impact Assessment in Mines	Innovative Mining Systems	Mine Construction Engineering	Mine Hazards and Rescue
Elective – III	Disaster Management in Mines	Environmental Pollution & Control in Mines	Mineral Economics	Waste Management
Elective – IV	Environmental Management in Mines	Rock Fragmentation Engineering	Rock Slope Engineering	Tunneling Engineering
Elective – V	Mine Strata Control	Mine Safety Engineering	Mine Subsidence Engineering	Mine Valuation

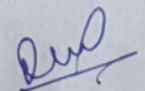
List of skill oriented courses (SCs)

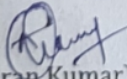
S. No.	Course Category	Course Title
1	Skill Oriented Course	Programming with Python
2	Skill Oriented Course	CAD for Mining
3	Soft Skills	English for Career
4	Skill Advanced Course	GIS Applications in Mining
5	Skill Advanced Course	Product Development


 (Dr. B. S. Sastry)
 University Nominee

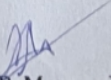

 (Dr. Singam Jayanthu)
 Subject Expert


 (Mr. S. Venkata Chary)
 Industrial Expert

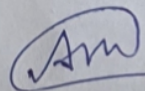

 (Dr. M.V.S. Babu)
 Special Invitee Member


 (Dr. A. Charan Kumar)
 BOS-Member


 (Mr. G. D. N. Raju)
 BOS-Member


 (Ms. P. Manasa)
 BOS-Member


 (Mr. A. K. Sanjay)
 BOS-Member


 (Mr. A. Sandeep Kumar)
 BOS-Chairman

List of Mandatory Courses (MCs)

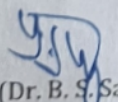
S. No.	Course Category	Course Title
1	Mandatory Course	Environmental Science
2	Mandatory Course	Constitution of India
3	Mandatory Course	Essence of Indian Traditional Knowledge
4	Mandatory Course	Professional Ethics & Human Values

General Minor Tracks in Mining Engineering

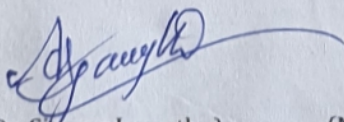
Note:

1. The student can opt any 4 courses from the pool.
2. Concerned BOS can add or delete the courses as per the decision of the board.
3. Pre-requisites to be defined by the board for each course.
4. Compulsory MOOC/NPTEL Courses for 04 credits (02 courses@ 2 credits each)

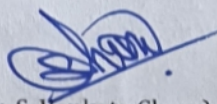
S. No.	Course	L-T-P	Credit
1	Development of Mineral Deposits	4-0-0	4
2	Introductory Geology	4-0-0	4
3	Mine Surveying	4-0-0	4
4	Surface Mining	4-0-0	4
5	Underground Coal Mining	4-0-0	4
6	Drilling and Blasting	4-0-0	4
7	Underground Metal Mining	4-0-0	4
8	Mine Legislation and General Safety	4-0-0	4



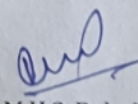
(Dr. B. S. Sastry)
University Nominee



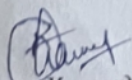
(Dr. Singam Jayanthu)
Subject Expert



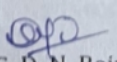
(Mr. S. Venkata Chary)
Industrial Expert



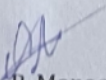
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(Dr. A. Charan Kumar)
BOS-Member



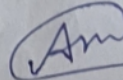
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BOS-Member



(Mr. A. K. Sanjay)
BOS-Member



(Mr. A. Sandeep Kumar)
BOS-Chairman