

Department of Mechanical Engineering (Mining Machinery Engineering)

B. Tech. 1st Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	IDC1	NMCI101	Engineering Mathematics - I	3-0-0	Theory	3
2	IDC2	NPHI101	Engineering Physics	3-0-0	Theory	3
3	IDC3	NPHI102	Engineering Physics Lab	0-0-2	Practical	1
4	DSC1	NMEC101	Engineering Mechanics	3-0-0	Theory	3
5	DSC2	NMEC102	Engineering Mechanic Lab	0-0-2	Practical	1
6	ESC1	NEEE101	Electrical Devices and Circuits	3-0-0	Theory	3
7	AEC1	NHSA101	Communication Skills	1-0-0	Theory	1
8	AEC2	NHSA102	Communication Skills Lab	0-0-2	Practical	1
9	SEC1	NCES101	Engineering Graphics	1-0-3	Theory	2.5
10	VAC1	NESV101	Environmental Science	3-0-0	Theory	3
						21.5

B. Tech. 3rd Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	DC3	NMMC201	Strength of Materials	3-1-0	Theory	4
2	DC4	NMMC202	Mechanics of Fluids	3-1-0	Theory	4
3	DC5	NMMC203	Theory of Machines	3-1-0	Theory	4
4	DP3	NMMC204	Strength of Materials and Theory of Machines Laboratory	0-0-2	Practical	1
5	DP4	NMMC205	Fluid Mechanics and Machines Laboratory	0-0-2	Practical	1
6	ESC3	NMEE201	Engineering Materials	3-0-0	Theory	3
7	AEC4	NMEA201	Introduction to MATLAB and SIMULINK	3-0-0	Theory	3
						20

B. Tech. 5th Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	DC9	NMMC301	Underground Mining Equipment	3-1-0	Theory	4
2	DC10	NMMC302	Design of Machine Elements	3-1-0	Theory	4
3	DE1		<i>To be chosen from the pool.</i>	3-0-0	Theory	3
4	DP7	NMMC303	Design of Machine Laboratory	0-0-2	Practical	1
5	DP8	NMMC304	Mining Machinery Laboratory - II	0-0-2	Practical	1
6	HSSE1		<i>To be chosen from the HSS pool. HSS department to contribute courses to the pool below.</i>	3-0-0	Theory	3
7	DC1 (Minor)/ DC1 (Hons)			3-1-0	Theory	4
8	SDC1 (Minor)/ DP1 (Hons)			0-0-3	Practical	1.5
						21.5

B. Tech. 7th Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	DE3		<i>To be chosen from the pool.</i>	3-0-0	Theory	3
2	DE4		<i>To be chosen from the pool.</i>	3-0-0	Theory	3
3	DC3 (Minor)/ DC3 (Hons)			3-1-0	Theory	4
4	SDC3 (Minor)/ DP3 (Hons)			0-0-3	Practical	1.5
5	Project	NMMC401	Project - I	8-0-0	Project	8
6	Internship	NMMS401	Internship	0-0-0	Internship	4
						23.5

B. Tech. 2nd Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	IDC4	NMCI102	Engineering Mathematics - II	3-0-0	Theory	3
2	DSC3	NMEC103	Thermodynamics	3-0-0	Theory	3
3	DSC4	NMEC104	Thermodynamics Lab	0-0-2	Practical	1
4	ESC2	NECE102	Digital Electronics	3-0-0	Theory	3
5	AEC3	NHSA103	Understanding Human Behaviour	2-1-0	Theory	3
6	SEC2	NMES101	Manufacturing Process	2-0-3	Theory	3.5
7	VAC2	NCSV101	Computer Programming	3-0-0	Theory	3
8	VAC3	NCSV102	Computer Programming Lab	0-0-2	Practical	1
						20.5

B. Tech. 4th Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	DC6	NMMC206	Opencast Mining Equipment	3-1-0	Theory	4
2	DC7	NMMC207	Hydraulics and Pneumatics	3-1-0	Theory	4
3	DC8	NMMC208	Fundamentals of Internal Combustion Engines	3-1-0	Theory	4
4	DP5	NMMC209	Hydraulics and Pneumatics Laboratory	0-0-2	Practical	1
5	DP6	NMMC210	Mining Machinery Laboratory - I	0-0-2	Practical	1
6	ESC4	NMEE202	Computer Aided Engineering Design	3-0-0	Theory	3
7	SEC4	NMES201	Computer Aided Machine Drawing	3-0-0	Theory	3
						20

B. Tech. 6th Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	DC11	NMMC305	Mine Electrical Technology	3-1-0	Theory	4
2	DC12	NMMC306	Mineral Processing and Handling Equipment	3-1-0	Theory	4
3	DE2		<i>To be chosen from the pool.</i>	3-0-0	Theory	3
4	DP9	NMMC307	Mine Electrical Technology Laboratory	0-0-2	Practical	1
5	HSSE2		<i>To be chosen from the HSS pool. HSS department to contribute courses to the pool below.</i>	3-0-0	Theory	3
6	DC2 (Minor)/ DC2 (Hons)			3-1-0	Theory	4
7	SDC2 (Minor)/ DP2 (Hons)			0-0-3	Practical	1.5
						20.5

B. Tech. 8th Semester Course Structure

Sl.	Course Type	Course Code	Course Name	L-T-P	Course Category	Credits
1	DC4 (Minor)/ DC4 (Hons)			3-1-0	Theory	4
2	DC5 (Minor)/ DC5 (Hons)			3-1-0	Theory	4
3	SDC4 (Minor)/ DP4 (Hons)			0-0-3	Practical	1.5
4	Project	NMMC402	Project - II	8-0-0	Project	8
						17.5