

B.Tech. Sem-III (B. Tech Mechanical Engineering - Major)

S N	Course Category	Course Code	Name of Subject	BOS	Teaching Scheme (hrs.)			Total Credit	Examination Scheme					
					(Th)	T U	P		Theory			Practical		
									Exam Hrs.	MS E	CA	ESE	CA	ESE
1	PCC-II	3BME01T	Fluid Mechanics	Mech	3	-	-	3	3	30	20	50	-	-
2	PCC-III	3BME01P	Machine Drawing Lab	Mech	-	-	2	1	-	-	-	-	25	25
3	PCC-IV	3BME02T	Strength of Material	Mech	3	-	-	3	3	30	20	50	-	-
4	PCC-IV	3BME02P	Strength of Material Lab	Mech	-	-	2	1	-	-	-	-	25	25
5	MDM-I	3BMEMD01T	MDM I (Refer Basket)	Mech	3	-	-	3	3	30	20	50	-	-
6	OEC-I	3BOE01T	Open Elective-I (Refer Basket)	ASH	3	-	-	3	3	30	20	50	-	-
7	EEM-01	3BEM01T/ 4BEM02T	(Refer Basket)	ASH	2	-	-	2	2	15	10	25	-	-
8	VEC-01	3BVE01T/ 4BVE02T	(Refer Basket)	ASH	2	-	-	2	2	15	10	25	-	-
9	CEP-I	3BME03P	CEP /Mini Project	Mech	-	-	4	2	-	-	-	-	50	50
Total					16	-	8	20		150	100	250	100	100
Total Marks (Theory & Practical)									500			200		
Total Marks (IIIrd Semester)									700					

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B.Tech. Sem-IV (B. Tech Mechanical Engineering - Major)

S N	Course Category	Course Code	Name of Subject	BOS	Teaching Scheme (hrs.)			Total Credit	Examination Scheme					
					(Th)	TU	P		Theory			Practical		
									Exam Hrs.	MSE	CA	ESE	CA	ESE
1	PCC-V	4BME01T	Machines and Mechanisms	Mech	3	-	-	3	3	30	20	50	-	-
2	PCC-VI	4BME01P	3D Solid Modeling	Mech	-	-	2	1	-	-	-	-	25	25
3	PCC-VII	4BME02T	Hydraulic Machines	Mech	3	-	-	3	3	30	20	50	-	-
4	PCC-VII	4BME02P	Hydraulic Machines Lab	Mech	-	-	2	1	-	-	-	-	25	25
5	MDM-II	4BMEMD02T	MDM 2 (Refer Basket)	Mech	2	-	-	2	2	15	10	25	-	-
6	OEC-II	4BOE02T	Open Elective-II (Refer Basket)	ASH	2	-	-	2	2	15	10	25	-	-
7	AEC-02	4BAE02T	(Refer Basket)	ASH	2	-	-	2	2	15	10	25	-	-
8	EEM-02	3BEM01T/ 4BEM02T	(Refer Basket)	ASH	2	-	-	2	2	15	10	25	-	-
9	VEC-02	3BVE01T/ 4BVE02T	(Refer Basket)	ASH	2	-	-	2	2	15	10	25	-	-
10	VSEC-II	4BME03P	Manufacturing Techniques	Mech	-	-	4	2	-	-	-	-	50	50
Total					16	-	08	20		135	90	225	100	100
Total Marks (Theory & Practical)									450			200		
Total Marks (IVth Semester)									650					

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List of Multi-disciplinary Minor (MDM)

Offered by Department	Sr. No.	Course category	Course Code	Title of the MDM Course	Credit	Semester
Mechanical Engineering	1	Multi-disciplinary Minor - 01	3BMEMD01T	Basics of Mechanisms	3	III
	2	Multi-disciplinary Minor - 02	4BMEMD02T	Engineering Material	2	IV
	3	Multi-disciplinary Minor - 03	5BMEMD03T	Computer Aided Design	3	V
	4	Multi-disciplinary Minor - 04	6BMEMD04T	Basics of Machine Design	2	VI
	5	Multi-disciplinary Minor - 05	7BMEMD05T	Product Design and Development	2	VII
	6	Multi-disciplinary Minor - 06	8BMEMD06T	Industry 5.0	2	VIII

List of Multi-disciplinary Minor ** (MDM) (Robotics and Computer Integrated Manufacturing)

Offered by Department	Sr. No.	Course category	Course Code	Title of the MDM Course	Credit	Semester
Mechanical Engineering	1	Multi-disciplinary Minor - 01	3BMEMD01T	Introduction to Robotics	3	III
	2	Multi-disciplinary Minor - 02	4BMEMD02T	Industrial Robotics	2	IV
	3	Multi-disciplinary Minor - 03	5BMEMD03T	Computer Integrated Manufacturing	3	V
	4	Multi-disciplinary Minor - 04	6BMEMD04T	Subtractive Manufacturing	2	VI
	5	Multi-disciplinary Minor - 05	7BMEMD05T	Additive Manufacturing	2	VII
	6	Multi-disciplinary Minor - 06	8BMEMD06T	Supply Chain Management	2	VIII

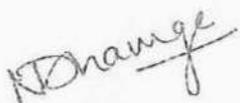
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Chairman, BoS	Dean (Acad.)	Principal			

KDK College of Engineering, Nagpur
Faculty of Engineering and Technology

Courses offered by Applied Science and Humanities Board

Open Elective Courses for III Sem. B. Tech.

Sr. No.	Semester	Course Code	Subjects	Credits
1	III	3BOE01T - A	Principles of Management	3
2	III	3BOE01T - B	Professional Practices & Ethics	3
3	III	3BOE01T - C	Insurance & Banking Management	3
4	III	3BOE01T - D	Total Quality Management	3
5	III	3BOE01T - E	Campus Sustainability	3
6	III	3BOE01T - F	Indian Stock Market	3
7	III	3BOE01T - G	Climate Change	3

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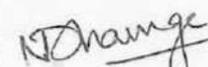
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B. Tech.
Civil / Mechanical/ Electrical/ ETC/ CS/ IT/ AI&DS Engineering
Courses offered by Applied Science and Humanities Board

Entrepreneurship/Economics/Management Courses (EEM-01 and EEM-02)

Sr. No.	Course Code	Course Name
1	3BEM01T-A /4BEM02T-A	Entrepreneurship Development
2	3BEM01T-B /4BEM02T-B	Economics for Engineers
3	3BEM01T-C /4BEM02T-C	Human Resource Management
4	3BEM01T-D /4BEM02T-D	Financial management
5	3BEM01T-E /4BEM02T-E	Strategic management

Value Education Courses (VEC-01 and VEC 02)

EM	Course Code	Course Name
1	3BVE01T-A /4BVE02T-A	Environmental Studies
2	3BVE01T-B /4BVE02T-B	Indian Constitution
3	3BVE01T-C /4BVE02T-C	Civic Education
4	3BVE01T-D /4BVE02T-D	Gender education
5	3BVE01T-E /4BVE02T-E	Universal Human Values

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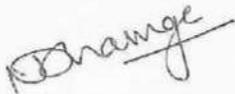
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Faculty of Engineering and Technology
B. Tech.

Courses offered by Applied Science and Humanities Board

Open Elective Courses for IV Sem. B. Tech.

Sr. No.	Semester	Course Code	Subjects	Credits
1	IV	4BOE02T - A	Corporate Social Responsibility	2
2	IV	4BOE02T - B	Life Skills	2
3	IV	4BOE02T - C	Digital Marketing	2
4	IV	4BOE02T - D	Basic of Mutual Fund	2
5	IV	4BOE02T - E	Introduction to Psychology	2
6	IV	4BOE02T - F	World Geography & Global Issue	2
7	IV	4BOE02T - G	Intercultural Communication	2

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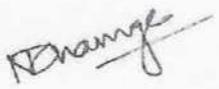
B. Tech.

Civil / Mechanical/ Electrical/ ETC/ CS/ IT/ AI&DS Engineering

Courses offered by Applied Science and Humanities Board

Ability Enhancement Courses (AEC-02)

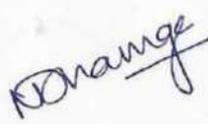
Sr. No.	Course Code	Course Name
1	4BAE02T-A	Introduction to German Language
2	4BAE02T-B	Stress Management
3	4BAE02T-C	Critical thinking
4	4BAE02T-D	Employability skills
5	4BAE02T-E	Technical English writing

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K. D. K College of Engineering, Nagpur
Mechanical Engineering Department
Track for Honor or Major Courses-Product Design
(Applicable to Students of Mechanical Engineering)

Sr. No.	Course Name	Coordinator	Course Duration
1	Manufacturing Guidelines For Product Design	Prof. Inderdeep Singh	8 weeks
2	Product Design and Development	Prof. Inderdeep Singh	4 weeks
3	Product Design and Manufacturing	Prof. J.Ramkumar Prof. Amandeep Singh	12 weeks
4	Design Practice	Prof. Shantanu Bhattacharya	8 weeks
5	Basics of Materials Engineering	Prof. Ratna Kumar Annabattula	12 weeks
6	Production Technology: Theory and Practice	Prof. Sounak Kumar Choudhury	12 weeks
7	Design Practice - II	Prof. Shantanu Bhattacharya	8 weeks
8	Ergonomics Workplace Analysis	Prof. Urmi R. Salve	4 weeks
9	System Design for Sustainability	Prof. Sharmistha Banerjee	12 weeks
10	Digital Human Modeling and Simulation for Virtual Ergonomics Evaluation	Prof. Sougata Karmakar	8 weeks
11	Gear And Gear Unit Design: Theory and Practice	Prof. Rathindranath Maiti	8 weeks
12	Design for Quality, Manufacturing and Assembly	Prof. Palaniappan Ramu	8 weeks
13	Design of Precision Machines	Prof. Jitendra P. Khatait	12 weeks
14	Introduction to Robotics	Prof. Ashish Dutta	12 weeks
15	Wheeled Mobile Robots	Prof. Asokan Thondiyath Prof. Santhakumar Mohan	8 weeks
16	Design of Farm Machinery	Prof. Hifjur Raheman	12 weeks

- NOTE-** 1. Ascertain the credits for each course
2. Total minimum credits to be acquired is 18

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K. D. K College of Engineering, Nagpur
Mechanical Engineering Department
Track for Minor Courses-Energy System
(Applicable to Students of Other Discipline)

Sr. No.	Course Name	Coordinator	Course Duration
1	Thermodynamics	Prof. Anand T. N. C	12 weeks
2	Applied Thermodynamics for Engineers	Prof. Dipankar N. Basu	12 weeks
3	Fluid Dynamics and Turbomachines	Prof. Dhiman Chatterjee, Prof. Shamit Bakshi	8 weeks
4	Fundamentals of Heat Transfer	Prof. Somnath Roy	12 weeks
5	Heat Transfer	Prof. Sunando Dasgupta	12 weeks
6	Conduction And Convection Heat Transfer	Prof. Suman Chakraborty Prof. Sankar Kumar Som	12 weeks
7	Transport Processes I: Heat and Mass Transfer	Prof. V. Kumaran	12 weeks
8	Fundamentals of Conduction and Radiation	Prof. Amaresh Dalal, Prof. Dipankar N Basu	12 weeks
9	Conduction And Convection: Fundamentals And Applications	Prof. Gautam Biswas / Prof. Sameer Khandekar	12 weeks
10	Power Plant Engineering	Prof. Ravi Kumar	8 weeks
11	Energy Conservation and Waste Heat Recovery	Prof. Prasanta Kumar Das, Prof. A Bhattacharya	12 weeks
12	Bioenergy	Prof. Mainak Das	8 weeks
13	Waste to Energy Conversion	Prof. P. Mondal	8 weeks
14	Non-conventional energy Resources	Prof. Prathap Haridoss	12 weeks
15	Technologies for Clean and Renewable Energy Production	Prof. P. Mondal	8 weeks
16	Selection of Nanomaterials for Energy Harvesting and Storage Application	Prof. Kaushik Pal	4 weeks

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