

Gautam Buddha University, Greater Noida

School of Engineering (Mechanical Engineering)

Degree	Course Name	Course Code	Marks:100
Integrated B. Tech. + M. Tech. / M.B.A.	Machine Design - II	ME 304	SM+MT+ET 25+25+50
Semester	Credits	L-T-P	Exam.
VI	4	2-2-0	3 Hours

Note: Use of design data book is allowed in the examination.

Unit - I

Gears: Design of gears: Spur; Helical; Bevel and worm gears; Gearbox design including housing. **(07 Hours)**

Unit - II

Bearing: Design of hydrodynamically lubricated journal bearing; Selection of rolling element bearings. **(06 Hours)**

Unit - III

Springs: Design of springs: Helical compression and extension springs; Leaf springs. **(04 Hours)**

Unit - IV

Belts: Design of flexible machine elements: Flat belts; V-belts and chains. **(05 Hours)**

Unit - V

Clutches and Brakes: Design of clutches and brakes: Single; Multiple; Cone clutches; Internal/external shoe type; Disk type. **(05Hours)**

Unit - VI

Flywheel and Crane Hook: Design of flywheels and crane Hook. **(03 Hours)**

Recommended Books:

1. Fundamentals of Machine Elements; B. J. Hamrock; B. Jacobson; S. R. Schmid; McGraw Hill.
2. Machine Design; Joseph E. Shigley Tata McGraw Hill.
3. Design of Machine Elements; V.B. Bhandari; Tata McGraw Hill.
4. Machine Design – Fundamentals and Applications; P. C. Gope; PHI learning Pvt. Ltd.
5. Machine Design; P.C. Sharma & D.K. Aggarwal; Katson.
6. Machine Design; Khurmi & Gupta ; S. Chand.
7. Machine Design; Juvinal; Jhon-Wiley Publications.
8. Machine Design; Spots; Prentice Hall Publications.
9. Machine Design: An Integrated Approach; R. L. Norton; Pearson Education.
10. Machine Design; Pandaya and Shah; Charotar Publications.
11. Machine Design; R. K. Jain; Khanna Publications.
12. Design Data Book compiled; PSG College of Engg. & Tech; Coimbatore.