

MET 3707 - Machine Design 2

Fall 2026 Syllabus, Section 01, CRN 41296,

Credit hours: 3

Instructor

Md Mehedi Hasan

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Public Instructor Information

Instructor Title: Lecturer

Professional Qualifications:

Ph.D. in Mechanical Engineering, University of Kentucky, Aug 2025

Master's in Engineering Mechanics, Pennsylvania State University, 2015

Master's in Mechanical Engineering, North Dakota State University, 2011

B.Sc. in Mechanical Engineering, Bangladesh University of Engineering and Technology, 2007

Instructor Office Location: Moser Hall, Room 4108

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Course Description

3707. Machine Design 2. Continuation of MET 3706, progressing to the design of machine elements such as gears, belts, clutches, chains, bearings, welded and bolted joints. Prereq.: "C" or better in MET 3706. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Machine Elements in Mechanical Design	R. Mott, EM Vavrek, J Wang	0-13-444118-4

ISBN13: 978-0-13-444118-4

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Ch. 7	Design of a Mechanical Drive: Belts, Chains, Wire Rope	
8/31	Ch. 8	Kinematics of Gearing	
9/7	Ch. 9	Spur gear design	
9/14	Ch. 10	Helical, bevel, and worm gears	
9/21	Ch. 10; CH. 14	Gear design; roller bearings	
9/28	CH. 14	Tapered Roller Bearings	
10/5	Ch. 16	Plain Bearings; Midterm Exam I	
10/12	Ch. 16-17	Power Screws	
10/19	Ch. 18	Springs	
10/26	Ch. 19	Fasteners	

11/2	Ch. 19	Fasteners; Midterm Exam II
11/9	Ch. 20	Welding
11/16	Ch. 20	Welding
11/23	Ch. 22	Brakes; Thanksgiving Break
11/30	Ch. 21	AC Motors; Review for Final
12/7	Final	Final Exam

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.