



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL
HONOURS IN MECHANICAL ENGINEERING (HME)
HONOURS CURRICULUM-1
EQUIVALENT MOOCs - ODD SEMESTER, JULY-DEC 2025, AY 2025-26

The following are the list of Honours in Mechanical Engineering and their equivalent courses for ODD semester (July-Dec) academic year 2025-26.

HONOURS ELECTIVE COURSES <i>(any 4 to 5 courses to earn 16 credits)</i>			EQUIVALENT COURSES OFFERED BY SWAYAM-NPTEL			
S.No	Course Code	Course Name	Course Name, Duration & Course code	C	Course Dates*	Course enrollment link
1.	U24HME1001	Artificial Intelligence and Machine Learning in Materials Engineering	Fundamentals of Artificial Intelligence (12 weeks) noc25-mm37	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_mm37/preview
2.	U24HME1002	Energy Conservation and Waste Heat Recovery	Energy Conservation and Waste Heat Recovery (12 weeks) noc25-me167	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me167/preview
3.	U24HME1003	Advanced Fluid Mechanics	Fluid Mechanics (12 weeks) noc25-ce107	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_ce107/preview
4.	U24HME1004	Computational Fluid Dynamics	Computational Fluid Dynamics (12 weeks) noc25-me165	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me165/preview
5.	U24HME1005	Design of Heat Exchangers	Heat Exchangers: Fundamental and Design Analysis (12 weeks) noc25-me170	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me170/preview
6.	U24HME1006	Robotics	Robotics (8 weeks) noc25-me166	3	CCD: July 21, 2025 to Sep 12, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me166/preview
7.	U24HME1007	Stress Analysis	Solid Mechanics (12 weeks) noc25-me123	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me123/preview

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S.No	Course Code	Course Name	Course Name, Duration & Course code	C	Course Dates*	Course enrollment link
8.	U24HME1008	MEMS and Nanotechnology	Nanotechnology, Science and Applications (8 weeks) noc25-mm44	3	CCD: July 21, 2025 to Sep 12, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_mm44/preview
9.	U24HME1009	Mechanical Vibrations and Condition Monitoring	Introduction to Mechanical Vibration (8 weeks) noc25-me112	3	CCD: July 21, 2025 to Sep 12, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_mm112/preview
10.	U24HME1010	Advanced Composite Materials	Mechanical Behavior of Polymers And Composites (12 weeks) noc25-me185	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me185/preview
11.	U24HME1011	Mechatronics	Design of Mechatronic systems (12 weeks) noc25-me179	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me179/preview
12.	U24HME1012	Advanced Manufacturing Systems	Rapid Manufacturing (12 weeks) noc25-me125	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me125/preview
13.	U24HME1013	Work System Design	Work System Design (12 weeks) noc25-me122	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me122/preview
14.	U24HME1014	Automation in Manufacturing	Automation in Manufacturing (12 weeks) noc25-me154	4	CCD: July 21, 2025 to Oct 10, 2025 LDR: July 28, 2025	https://onlinecourses.nptel.ac.in/noc25_me154/preview
15.	U24HME1015	Measurement Systems	NOT AVAILABLE THIS SEMESTER	-	CCD: - LDR: -	-

*C: Credits; CCD: Course Commencement Date; LDR: Last Date of Registration

Laboratory Courses and Mini Project- Honours Curriculum (any 2 courses) – TO BE TAKEN IN THE MECHANICAL ENGINEERING DEPARTMENT				
16	Laboratory Courses- Honours Curriculum	U24HME1016	Computational Fluid Dynamics Laboratory	2 Credits
17		U24HME1017	Simulation Laboratory	
18		U24HME1018	Advanced Manufacturing Laboratory	
19	Honours Mini-project (Optional)	U24HME1019	Mini-project (Optional)	2 Credits
<i>Total Credits to be earned</i>				16+2

Date: 05-07-2025

Sri S. Anil Kumar
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