

**APJ Abdul Kalam Technological University
Thiruvananthapuram**

Abstract

B.TECH REGULATIONS 2024 – APPROVAL OF MASSIVE OPEN ONLINE COURSES (MOOCs) FOR CREDIT ACQUISITION AND TRANSFER TOWARDS THE AWARD OF HONOURS DEGREE - Mechanical Engineering – SANCTIONED – ORDERS ISSUED.

ACADEMIC SECTION

U.O.No. 2418/2026/KTU

Thiruvananthapuram, Dated: 06.10.2026

*Read:-*1. BTech Regulations 2024

2. Minutes of the Meeting of the Board of Studies in Mechanical Engineering held on 16-08-2026

3. UO No 2146/2024/KTU dated 02.08.2024

ORDER

The B.Tech Regulations 2024 provide for the award of the B.Tech Honours Degree to students who satisfy the prescribed academic requirements and earn an additional 15 credits beyond the credit requirements of the regular B.Tech programme.

Out of 15 credits required for Honours Degree, 4 credits must be earned by completing the first theory course listed in the Honours Curriculum.

The remaining 11 credits can be acquired by:

- i. Completing MOOCs recommended by the Board of Studies and approved by the Academic Council, or
- ii. Completing theory courses listed in the Honours curriculum, or
- iii. A combination of MOOCs and theory courses listed in the Honours curriculum, or
- iv. Additional credits (2 credits per Level 5 course) acquired by successfully completing Level 5 elective courses listed in the elective baskets from semester 4 to semester 8, or
- v. A combination of MOOCs, theory courses listed in the Honours curriculum and additional credits (2 credits per Level 5 course) acquired by successfully completing Level 5 elective courses listed in the elective baskets from semester 4 to semester 8.

The MOOCs considered for the Honours Degree shall have a minimum duration of eight weeks.

Registration for the first theory course prescribed in the Semester IV Honours Curriculum is mandatory for students opting for the B.Tech Honours programme.

With a view to facilitating the effective implementation of the Honours programme and providing students with greater academic flexibility and opportunities for interdisciplinary learning, the University has identified and approved suitable MOOCs for credit requirement towards the Honours Degree requirements.

Vide paper read second, the Board of Studies in Mechanical Engineering **examined the MOOCs and recommended for approval of the Honours MOOC courses in Mechanical Engineering from fifth semester to seventh semester.**

Vide paper read third above, Hon'ble Vice Chancellor will approve all the requests for approval of



MOOCs recommended by the Board of Studies.

Accordingly, sanction has been accorded by the Hon'ble Vice Chancellor for the approval of the MOOCs listed below for consideration towards the additional credit requirements for the award of the B.Tech Honours Degree under the B.Tech Regulations 2024, subject to reporting the matter to the Academic Council.

List of Approved MOOC for BTech Honours Degree in **Mechanical Engineering** - BTech Regulation 2024

Sl No	Semester	Course Code	Course	Duration	Offering Institute
1	5	HNMEM559	Laser- Assisted Measurements and Micro Manufacturing	12 weeks	IIT Madras IIT Indore
2	5	HNMEM560	Fundamentals of Micro and Nanofabrication	12 weeks	IISc Bangalore
3	5	HNMEM561	Advanced Machining Processes	8 weeks	IIT Guwahati
4	5	HNMEM562	Fundamentals of Additive Manufacturing Technologies	12 weeks	IIT Guwahati
5	5	HNMEM563	Metal Additive Manufacturing	12 weeks	IIT Kanpur
6	5	HNMEM564	Laser based Manufacturing	8 weeks	IIT Guwahati

Sl No	Semester	Course Code	Course	Duration	Offering Institute
1	6	HNMEM659	Optimization from fundamentals	12 weeks	IIT Bombay
2	6	HNMEM660	Evolutionary Computation for Single And Multi-Objective Optimization	8 weeks	IIT Guwahati
3	6	HNMEM661	Industrial Engineering and Operations Research	12 weeks	IIT Guwahati
4	6	HNMEM662	Optimization Theory and Algorithms	12 weeks	IIT Madras



Sl No	Semester	Course Code	Course	Duration	Offering Institute
1	7	HNMEM759	Microfluidics And Nanofluidics	12 weeks	IIT Kharagpur
2	7	HNMEM760	Microfluidics and Microsystems	12 weeks	IIT Madras
3	7	HNMEM761	Interfacial Fluid Mechanics	12 weeks	IIT Hyderabad
4	7	HNMEM762	Computational Fluid Dynamics	12 weeks	IIT Kharagpur
5	7	HNMEM763	Computational Fluid Dynamics using the Finite Element Method	12 weeks	IIT Kanpur

Orders are issued accordingly.

Sd/-

Dr. VINU THOMAS *
Dean (Academic)

Copy to:-

All Concerned

Forwarded / By Order

Section Officer

* This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.

