

DEPARTMENT OF MECHANICAL ENGINEERING

CURRICULUM

B.TECH. MECHANICAL ENGINEERING

M.TECH. MECHATRONICS

PH.D. MECHANICAL ENGINEERING

APPROVED BY BOARD OF STUDIES

(Effective from Session 2024-25)



SUBMITTED BY

DR. SYED ASGHAR HUSAIN RIZVI

SUBJECT IN-CHARGE, DEPARTMENT OF MECHANICAL ENGINEERING



ख्वाजा मुईनुद्दीन चिश्ती भाषा विश्वविद्यालय, लखनऊ, उ
Khwaja Moinuddin Chishti Language University, Lucknow


U.P. STATE GOVERNMENT UNIVERSITY,
(Recognised Under Section 2(f) & 12(B) of the UGC Act, 1956 & B.Tech. Annr)

AGENDA

The Board of Studies (BoS) meeting of the Department of Mechanical Engineering Faculty of Engineering & Technology is to be held in the Administrative Block of Khwaja Moinuddin Chishti Language University, Lucknow on 12th August 2024.

The following agenda will be discussed:

- Agenda No. 1: Discussion and approval of the Study Evaluation Scheme/Syllabi for B. Tech. Programme (Mechanical Engineering).**
- Agenda No. 2: Discussion and approval of the Study Evaluation Scheme/Syllabi for M. Tech. Programme (Mechatronics).**
- Agenda No. 3: Discussion and approval of the Study Evaluation Scheme/Syllabi for Course Work of Ph.D. Programme (Mechanical Engineering).**
- Agenda No. 4: Discussion and Approval of Laboratory Syllabi for Department of Mechanical Engineering.**
- Agenda No. 5: Discussion and Approval of Curriculum of Engineering Mechanics, Engineering Mechanics Lab, Manufacturing Process, Workshop Practice, and Engineering Graphics Lab for B.Tech. Programme to be implemented from academic session 2024-25**
- Agenda No. 7: Any other discussions/suggestions related to the academic development of the University.**
- Agenda No. 8: Discussion on Feedback Report Received by the IQAC and decision on actions to be taken in this regard.**


Chairperson
(BoS Committee)



ख्वाजा मुईनुद्दीन चिश्ती भाषा विश्वविद्यालय, लखनऊ, उ०
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U.P. STATE GOVERNMENT UNIVERSITY,
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Board of Studies (BoS) meeting held on 12th August, 2024

Department of Mechanical Engineering

Faculty of Engineering & Technology

S. No.	Member Name	Signature
1	Prof. S. Haider Ali Department of Applied Science and Humanities Faculty of Engineering and Technology	
2	Prof. Shailendra Sinha Department of Mechanical Engineering IET, Lucknow	
3	Prof. Arun Kumar Tiwari Department of Mechanical Engineering IET, Lucknow	
4	Prof. Arun Mittal Department of Mechanical Engineering IET, Lucknow	Online
5	Dr. Syed Asghar Husain Rizvi Department of Mechanical Engineering Faculty of Engineering and Technology	
6	Mr. Vivek Bajpai Department of Mechanical Engineering Faculty of Engineering and Technology	
7	Mr. Jainath Singh Yadav, Chief Manager, Prag Industries Limited, Pune Parent/Guardian (Special Invitee)	Online
8	Er. Mohd. Nasir Former B.Tech. Mechanical Engineering Student (Special Invitee)	
9	Abhishek Kumar Verma Student, B.Tech. Mechanical Engg. (Third Year) (Special Invitee)	



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MINUTES OF THE BOARD OF STUDIES MEETING HELD ON 12th AUGUST, 2024

Department of Mechanical Engineering

Faculty of Engineering & Technology

Minutes

The Board of Studies (BoS) meeting of the Department of Mechanical Engineering was held in Administrative Block on 12th August 2024 at 03:00 PM.

The following members were present:

Internal Members:

1. Prof. S. Haider Ali - Chairperson
2. Dr. Syed Asghar Husain Rizvi - Convener
3. Mr. Vivek Bajpai - Internal Member

External Members:

1. Prof. Shailendra Sinha
2. Prof. Arun Kumar Tiwari
3. Prof. Arun Mittal

Prof. S. Haider Ali, Chairperson (BoS), chaired the meeting and welcomed the external and internal members. He introduced the external members to the internal members. The following agenda items were discussed:

Agenda No. 1: Discussion and approval of the Study Evaluation Scheme/Syllabi for B. Tech. Programme (Mechanical Engineering).

The proposed Syllabi and Study Evaluation Scheme of B.Tech. Programme of the Department of Mechanical Engineering was discussed in detail. Prof. Shailendra Sinha and Prof. Arun Kumar Tiwari suggested adding more standard books in the reference section. Furthermore, they also suggested making the course outcome uniform for all the courses and should match the content of the curriculum. The BoS Committee subsequently approved the Study Evaluation Scheme/ Syllabi of the concerned department.



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Agenda No. 2: Discussion and approval of the Study Evaluation Scheme/Syllabi for M. Tech. Programme (Mechatronics).

The proposed Syllabi and Study Evaluation Scheme of M.Tech. Programme (Mechatronics) of the Department of Mechanical Engineering was discussed in detail. The Committee members suggested adding more elective courses to the curriculum creating a better opportunity for the students to select the course of their choice. The BoS Committee subsequently approved the Study Evaluation Scheme/ Syllabi of the concerned department.

Agenda No. 3: Discussion and approval of the Study Evaluation Scheme/Syllabi for Course Work of Ph.D. Programme (Mechanical Engineering).

The proposed Syllabi and Study Evaluation Scheme of Ph.D. Programme of the Department of Mechanical Engineering was discussed in detail. The BoS Committee subsequently approved the Study Evaluation Scheme/ Syllabi of the concerned department.

Agenda No. 4: Discussion and Approval of Laboratory Syllabi for Department of Mechanical Engineering.

All the present members discussed in detail and approved unanimously.

Agenda No. 5: Any other discussions/suggestions related to the academic development of the University.

All the members suggested emphasizing those subjects which have good acceptance in the industry.

Agenda No. 6: Discussion and Approval of Engineering Mechanics, Engineering Mechanics Lab, Manufacturing Process, Workshop Practice, and Engineering Graphics Lab for B.Tech. Programme to be implemented from academic session 2024-25.

All the present members discussed the curriculum in detail and approved unanimously.

Agenda No. 7: Discussion on Feedback Report Received by the IQAC and decision on actions to be taken in this regard.

The Chairperson discussed the feedback report received from the IQAC and suggestions given by the stakeholders were taken into consideration. Syllabus modification and introduction of new areas were discussed.

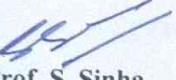


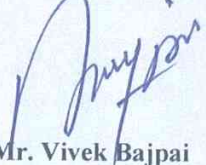
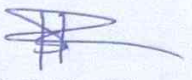


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The faculty members of the Department of Mechanical Engineering were also present in the meeting.

In the end, all the proposed agenda concluded with a vote of thanks by the Chairperson.

		online			
Prof. S. Sinha	Prof. A.K. Tiwari	Prof. Arun Mittal	Dr. S.A.H. Rizvi	Mr. Vivek Bajpai	Prof. S. Haider Ali
Dept of M.E.	Dept of M.E.	Dept of M.E.	Dept of M.E.	Dept of M.E.	Chairperson
IET, Lko	IET, Lko	IET, Lko	KMCLU, Lko	KMCLU, Lko	(BoS Committee)



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Program Educational Objectives

PEO-1	Plan, design, construct, maintain and improve mechanical engineering systems that are technically sound, economically feasible and socially acceptable.
PEO-2	Apply analytical, computational and experimental techniques to address the challenges faced in mechanical and allied engineering streams.
PEO-3	Communicate effectively using conventional platforms as well as innovative /online tools and demonstrate collaboration, networking & entrepreneurial skills.
PEO-4	Exhibit professionalism, ethical attitude, team spirit and pursue lifelong learning to achieve career, organizational and societal goals.

Program Outcomes

PO-1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering and technology to the solution of complex mechanical engineering problems.
PO-2	Problem analysis: Identify, formulate, review existing literature, and analyze complex engineering problems to reach substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO-3	Design/Development of solutions: Design solutions for mechanical engineering problems and design system components or processes that meet the specified needs with appropriate consideration for societal, economical and environmental considerations.
PO-4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex mechanical engineering activities with an understanding of the limitations.
PO-6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
PO-7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO-9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	Communication: Communicate effectively with the engineering community and with society at large, including the ability to comprehend, create effective reports, make effective presentations, and give and receive clear instructions.
PO-11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO-12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes

PSO-1	Apply mechanical and interdisciplinary knowledge to analyze, design and manufacture products to address the needs of the society.
PSO-2	Apply state-of-the-art tools and techniques to conceptualize, design and introduce new products, processes, systems and services.