

Agenda for the 14th meeting of the Board of Studies

The Agenda of the meeting will be as follows:

Item No. 14.1: To confirm the minutes of 13th Board of Studies meeting.

Item No. 14.2: To consider and recommend to approve the merging the programmes of B.Tech. in Mechatronics & B.Tech. in Automobile Engineering as B.Tech. ME with specialization in Mechatronics Engineering and B.Tech. ME with specialization in Automobile Engineering.

Item No. 14.3: To consider and recommend to approve the programme B.Tech. Mechanical Engineering (Specialization in Smart Manufacturing with Dysmech Competency Services, Pune (DCS) under Choice Based Credit System (CBCS).

Item No. 14.4: To consider and recommend the value-added courses for B.Tech program.

Item No. 14.5: To consider and recommend to introduce the new courses in the existing Programmes.

Item No. 14.6: To consider and recommend the courses having focus on employability/ entrepreneurship/Skill Development.

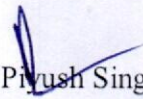
Item No. 14.7: To consider and recommend restructuring and updation of contents in B Tech and M.Tech Programs.



S.N.	Programme	Number of courses under consideration for revision	Details of Courses
1	B.Tech. Mechanical Engineering	5	Basic Mechanical Engineering,
			Product design and development
			Engineering Workshop Practice Lab
			Engineering Drawing
			Computer Aided Drafting Lab (CAD Lab)
2	B.Tech. Mechanical Engineering (Specialization in Automobile)	5	Basic Mechanical Engineering,
			Product design and development
			Engineering Workshop Practice Lab
			Engineering Drawing
			Computer Aided Drafting Lab (CAD Lab)
3	M.Tech. Mechanical Engineering (Design)	1	Advance Computer Aided Design.
4	M.Tech. Mechanical Engineering (Production)	1	Advance Computer Aided Design.

Item No. 14.8: To consider and approve modification in one course and to introduce one new course in PhD Programme, as recommended by the Research Cell of the University

Item No. 14.9: Any other item with the permission of chair.

(Prof.  Singhal)
Head, Dept. of Mech. Engg.

Prof. PIYUSH SINGHAL
Head, Dept. of Mech. Engg
GLA University, Mathura

Copy to: Chairman, Academic Council
Director, IET, GLA University, Mathura
Registrar, GLA University, Mathura
All the members of BoS

Department of Mechanical Engineering

**MINUTES OF
14TH MEETING
OF
BOARD OF STUDIES (BOS)**

**DEPARTMENT OF
MECHANICAL
ENGINEERING**



JUNE 11, 2020

By S. A. 1

Minutes of 14th BOS meeting held on 11-06-2020 at 2PM

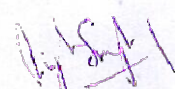
The 14th meeting of the Board of Studies of Mechanical Engineering Department was held at 2:00 PM on June 11, 2020 of Mechanical Engineering Department.

Meeting chaired by H.O.D Mechanical Prof. Piyush Singhal in presence of external members,

1. **Mr. Rakesh Singh Yadav** External Expert, Safety Officer, BHEL, Vishakhapatnam (Alumnus 2001-05)
2. **Mr. Augustya Kumar Sharma** External Expert, Dy. Manager, Volvo Eicher Commercial Vehicles Ltd., Gurugram (Alumnus 2007-11)
3. **Mr. Rahul Naidu** External Expert, Chief Advisor: Engineering Services, Dysmech Competency Services Pvt. Ltd, Pune, Indi

The following BoS members of the department were present in the meeting:

1. Dr. Piyush Singhal Chairperson & Head, Mech. Engg. Dept., GLA University
2. Mr. Rakesh Singh Yadav External Expert, Safety Officer, BHEL, Vishakhapatnam (Alumnus 2001-05)
3. Mr. Augustya Kumar Sharma External Expert, Dy. Manager, Volvo Eicher Commercial Vehicles Ltd., Gurugram (Alumnus 2007-11)
4. Mr. Rahul Naidu External Expert, Chief Advisor: Engineering Services, Dysmech Competency Services Pvt. Ltd, Pune, India
5. Dr. B.R.K. Gupta Head, Dept. of Physics, GLA University, Mathura
6. Dr. Vinay Kr. Deoliya Head, Dept. of ECE, GLA University, Mathura
7. Dr. Kamal Sharma Associate Dean Research, GLA University, Mathura
8. Dr. RudraPratap Singh Member
9. Dr. Manoj Kumar Agrawal Member
10. Mr. RavindraPratap Singh Member
11. Dr. Vijay Kumar Dwivedi Member
12. Dr. Sujit Kumar Verma Member
13. Dr. Naveen Kumar Gupta Member
14. Dr. Kuldeep Kumar Saxena Member
15. Dr. Pradeep Kumar Singh Member
16. Mr. KuwarMausam Member
17. Mr. Shashank Srivastava Member
18. Mr. Vikas Sharma Member
19. Mr. Gaurav Bharadwaj Member
20. Mr. Aneesh Kumar Member
21. Mr. Nitin Kukreja Member



Experts have given following suggestions:

Agenda 14.1: To confirm the minutes of 13th Board of Studies meeting.

Chairperson and H.O.D. Prof. Piyush Singhal welcomed external experts and internal members of B.O.S and comprise them about agenda of 13th B.O.S. details of suggestion and action taken measures were discussed briefly. External experts were highly appreciative for systematic and progressive approach adopted by the B.O.S for modifications and launching of new syllabus. (**Annexure A**)

Agenda 14.2: To get approval for merging the Programmes of B.Tech. in Mechatronics & B.Tech. in Automobile Engineering as B.Tech. ME with specialization in Mechatronics Engineering and B.Tech. ME with specialization in Automobile Engineering.

Mr. Rahul Naidu suggested training to students in Python programming, I.T Related exposure, M/C language programming, Industry 4.0 level exposure required for students.

Er. Rakesh Yadav discussed various safety related issues related to operation and maintenance of equipment's and tools should be included in course curriculum in compliance with industry 4.0. He also suggested inclusion of quality issues and measurement of various defects should be included in course curriculum.

Some low cost measurement test should be part of lab training, these are as such like liquid penetration test for cracks and magnetic check for crack checking. Augustya Kumar Sharma suggested automation for higher production. He suggested that more emphasis should be given to automation of production machinery, process planning and materials handling to save time, material and manpower. He emphasized on inclusion of techno-commercial aspects in automobiles and B.S 6 norms.

Agenda 14.3: To consider and approve the programme B.Tech. Mechanical Engineering (Specialization in Smart Manufacturing with DCS (Dysmech Competency Services, Pune) under Choice Based Credit System (CBCS).

All external experts were highly enthusiastic about the proposal. They further suggested to include industry 4.0 level training to students and more exposure in computing interface to enhance wider acceptability of students in IT manufacturing and services sectors (**Annexure B**).

Item No. 14.4: To consider and recommend the value-added courses for B. Tech program.

The experts discussed and recommended the list of value-added courses (**Annexure - C**).

Item No. 14.5: To consider and recommend introduction of new courses in the existing Programmes.

Based on the feedback of various stakeholders (Faculty, Alumni, Corporate and students) the list of new courses discussed with the experts. After thorough discussion Board approved the same. (**Annexure D**)



Item No. 14.6: To consider and recommend the courses having focus on employability/ entrepreneurship/ skill Development.

The experts discussed and recommend the courses having focus on employability/ entrepreneurship/skill Development of the students (*Annexure - E*).

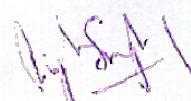
Item No. 14.7: To consider and recommend restructuring and updation of contents in B Tech and M. Tech Programs

Based on the feedback received from students, faculty, employers & alumni the revision/ upgradation/ modification in syllabus of existing courses in various Programmes is proposed as follows

S.N.	Programme	Number of courses under consideration for revision	Details of Courses
1	B.Tech. Mechanical Engineering	5	Basic Mechanical Engineering, Product design and development Engineering Workshop Practice Lab Engineering Drawing Computer Aided Drafting Lab (CAD Lab)
2	B.Tech. Mechanical Engineering (Specialization in Automobile)	5	Basic Mechanical Engineering, Product design and development Engineering Workshop Practice Lab Engineering Drawing Computer Aided Drafting Lab (CAD Lab)
3	M.Tech. Mechanical Engineering (Design)	1	Advance Computer Aided Design.
4	M.Tech. Mechanical Engineering (Production)	1	Advance Computer Aided Design.

Members considered and approved the same (*Annexure -F*).

Department of Mechanical Engineering




Item No. 14.8: To consider and approve modification in one course and to introduce one new course in PhD Programme, as recommended by the Research Cell of the University

Research Cell of the University recommended modification in the Syllabus of "Research Methodology" Course as well as recommended to introduce "Research and Publication Ethics" course in PhD Programme from the Session 2020-21. Syllabi of both the courses were duly considered by the board and subsequently approved.

Item No. 14.9: Any other item with the permission of chair.

Overall members were highly thankful for hospitality and never-ending appetite to develop association with industries and professional bodies. The meeting ended with vote of thanks given by the chair.


(Prof. PiYush Singhal)
Head, Dept. of Mech. Engg.

Copy to: Chairman, Academic Council
Director, IET, GLA University, Mathura
Registrar, GLA University, Mathura
All the members of BoS

Prof. PIYUSH SINGHAL
Head, Dept. of Mech. Engg
GLA University, Mathura

Annexure E

1/1/2011

List of courses having focus on employability/ entrepreneurship/ skill development offered by the Department

S.No.	Name of the Course	Focus on Employability/ Entrepreneurship/ Skill development
1	Measurement and Metrology	Employability/ Skill development
2	Manufacturing Science -I	Employability
3	Applied Thermodynamic	Employability/ Skill development
4	Kinematics of Machine	Skill development
5	Measurement & Metrology Lab	Employability/ Skill development
6	Manufacturing Science -I Lab	Employability
7	Machine Drawing Lab	Employability/ Skill development
8	Soft Skills- I	Skill development
9	Fluid Machinery	Employability/ Skill development
10	Internal Combustion Engine	Employability
11	Machine Design -II	Employability
12	Refrigeration and Air Conditioning	Employability/ Skill development
13	Fluid Machinery Lab	Employability
14	Machine Design - II Lab	Employability
15	Refrigeration and Air Conditioning Lab	Employability/ Skill development
16	Soft Skills – IV	Skill development
17	Operations Research	Skill development
18	Industrial Engineering	Skill development
19	Fluid Mechanics	Skill development
20	Material Science	Skill development
21	Strength of Materials	Skill development
22	Fluid Mechanics Lab	Skill development
23	Materials Science & Testing Lab	Skill development
24	Dynamics of Machine	Skill development
25	Theory of Machine Lab	Skill development
26	Manufacturing Science II	Employability
27	Machine Design-I	Employability
28	Heat & Mass Transfer	Skill development
29	Manufacturing Science II Lab	Employability
30	Machine Design II Lab	Employability
31	Automobile Engineering	Employability
32	Applied Mechanics	Skill development
33	Applied Mechanics Lab	Skill development
34	Engineering Drawing	Employability/Skill development
35	Engineering Workshop Practice Lab	Employability
36	Computer Programming	Skill development
37	Basic Electrical Engineering	Skill development
38	Electronics Engineering	Skill development
39	Electronics lab I	Skill development
40	English Language Skills for Communication – I	Skill development

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41	English Language Lab – I	Skill development
42	Computer Programming Lab	Skill development
43	Electrical Simulation lab	Skill development
44	English Language Lab - II	Skill development
45	Electrical Machines & Automatic Control	Employability/ Skill development
46	Electrical Machines & Automatic Control Lab	Employability/ Skill development
47	Soft Skills – III	Skill development
48	Soft Skills – I	Skill development
49	Computer aided drafting lab	Skill development
50	Solar energy	Employability
51	solar energy lab	Employability
52	PROJECT BASED SOLAR ENERGY LAB	Employability
53	Welding Science & Technology	Employability
54	Welding Science & Technology Lab	Employability
55	Composite Materials	Skill development
56	Mini Project I	Skill development
57	Mini Project II	Skill development
58	Industrial Training I	Skill development
59	Industrial Training II	Skill development
60	Advance Material Science	Skill development
61	English for Professional Purpose – I	Skill development
62	English for Professional Purpose – II	Skill development
63	Non-Conventional Energy Resources	Employability/ Skill development
64	Basic Mechanical Engineering	Skill development
65	POWER PLANT ENGINEERING	Employability/Skill development
66	Modern Vehicle Technology	Employability/Skill development
67	Gas Dynamics	Employability
68	Gas Turbine and Jet Propulsion	Employability
69	Advanced Heat Transfer	Skill development
70	Introduction to Vehicle Dynamics	Skill development
71	Vehicle Dynamics Lab	Skill development
72	Advanced Fluid Mechanics	Skill development
73	Compressible Fluid Flow	Skill development
74	Aerodynamics	Employability
75	Turbulent Flow	Skill development
76	Computational Fluid Dynamics	Skill development
77	CFD Lab	Skill development
78	Advanced Software Lab	Skill development
79	Continuum Mechanics	Skill development
80	Computer Aided Design	Skill development
81	Finite Element Methods	Skill development
82	Vibration and Noise	Skill development
83	Machine Tool Design	Employability
84	Computer Aided Manufacturing	Employability

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85	Modern Manufacturing Process	Employability
86	Metal Forming Analysis	Skill development
87	CAD/CAM Lab	Skill development
88	Modern Manufacturing Process Lab	Employability
89	Project based Modern Manufacturing Process Lab	Employability
90	Project based CAD/CAM Lab	Skill development
91	Product Development & Design	Employability
92	Value Engineering	Skill development
93	Engineering Mathematics I	Skill development
94	Engineering physics	Skill development
95	Engineering Chemistry	Skill development
96	Engineering physics lab	Skill development
97	Engineering Chemistry lab	Skill development
98	Engineering Mathematics II	Skill development
99	Supply Chain Management	Skill development
100	Ethics and values	Skill development
101	Engineering Mathematics – III	Skill development
102	Environment studies	Skill development
103	Electrical Engineering lab	Skill development
104	Applied Ergonomics	Skill development
105	Robotics & FMS	Skill development
106	Industrial Automation & Control System	Skill development
107	Engineering System Modeling & Simulation	Skill development
108	Robotics & FMS Lab	Skill development
109	Project based Robotics & FMS Lab	Skill development
110	Minor Project	Skill development
111	Major Project	Skill development
112	Soft Skills- I	Skill development
113	Fuel and Lubricant	Employability
114	NETWORK ANALYSIS AND SYNTHESIS	Employability
115	Product Design & Development	Employability
116	Product Design Manufacturing	Employability
117	Computer Aided Manufacturing (CAM)	Employability
118	Simulation, Modeling and Analysis	Skill development
119	Simulation, Modeling and Analysis Lab	Skill development
120	Advanced Production Technology	Employability
121	Optimization for Engineering Design	Skill development
122	Finite Element Method (FEM)	Skill development
123	Finite Element method Lab (FEM)	Skill development
124	Industrial Tribology	Skill development
125	Theory of Elasticity and plasticity	Skill development
126	Machine tool Design	Employability/ Skill development
127	Interfacial Tribology	Skill development
128	Energy Conservation and Management	Skill development

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129	Industrial Automation & Robotics	Employability/ Skill development
130	Supply Chain Management	Skill development
131	Colloquium	Skill development
132	Dissertation - I	Skill development
133	Rapid prototyping and tooling	Skill development
134	Design of Production Tooling	Employability
135	Reliability and maintenance	Skill development
136	Advanced Machining	Employability
137	Nanotechnology and its Applications	Employability/ Skill development
138	Computer-Based Numerical Techniques and Soft Computing	Skill development
139	Micro Manufacturing	Employability
140	Technology of Competitive Manufacturing	Employability
141	Concurrent Engineering	Skill development
142	Dissertation - II	Skill development
143	Competitive Manufacturing Strategies and Group Technology	Skill development
144	Numerical Techniques and Soft Computing	Skill development
145	Metal Working Tribology	Employability/ Skill development
146	Production Toolings	Skill development
147	Accuracy Inspection and Measurements	Skill development
148	Value Engineering & Cost Control	Skill development
149	Optimization Techniques	Skill development
150	Nano Technology & its Applications	Employability/ Skill development
151	Reliability & Maintenance	Skill development
152	Advanced Heat Transfer Processes	Employability/ Skill development
153	Composite Materials & its Applications	Employability/ Skill development
154	Advanced Welding Processes And Applications	Employability/ Skill development
155	Industrial Automation and Robotics	Employability/ Skill development
156	Advanced Mechanics of Solids	Skill development
157	Research Methodology	Skill development
158	Research Publication & Ethics	Skill development

H.O.D

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