

# KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University Established Under Section 3 of UGC Act, 1956)
Eachanari Post, Coimbatore-641021. Tamilnadu, India.

### FACULTY OF ENGINEERING B.E. (MECHANICAL ENGINEERING)

#### BOS (2015 - 2016)

### Minutes of Board of Studies:

Minutes of the meeting of the board of studies in Mechanical Engineering held on 17.04.2015 at 09.30 am.

#### MEMBERS PRESENT

- 1. Prof. E. Baburaj, HoD/Mechanical Engineering, KAHE
- 2. Mr. K. Subramani, General Manager Quality Engineer, Pricol Ltd., Coimbatore.
- 3. Dr. P. Senthil, Prof. / Mechanical Engineering, KAHE
- 4. Mr. A. Sivanantham, Asso. Prof. /Mechanical Engineering, KAHE
- 5. Mr. R. Karuppasamy, AP/Mechanical Engineering, KAHE

The chair person welcomed the members of the board of studies. The BoS committee scrutinized the drafted syllabus of the following programmes and the following resolutions were passed.

### Agenda 1:

To considered and approve modification of curriculum and syllabus for B.E Mechanical Engineering for the Academic Year 2015-16.

#### **Resolution 1:**

Resolved to modify curriculum and syllabus for B.E Mechanical Engineering for the Academic Year 2015 – 16(Approved changes in syllabus is given in Annexure I).

#### Annexure I:

# For UG courses the following suggestions were given

The following changes are made in the UG B.E Mechanical Engineering based on the local and global needs. Employability, Entrepreneurship and Skill Development aspects have been taken careoff. They are considered as new courses. All the courses are formed based on Choice Based Credit System (CBCS).

Sl. No	Course Code	Course Name	Changes Made
1	15BEME301	Methods of Applied Mathematics	Changes has been made in units 1 and 3
2	15BEME302	Engineering Mechanics	Changes has been made in units 4 and 5
3	15BEME303	Manufacturing Technology – I	Changes has been made in units 3 and 4
4	15BEME304	Fluid Mechanics and Machinery	Changes has been made in units 1 and 3
5	15BEME305	Electrical Drives and Controls	Changes has been made in units 2 and 4
6	15BEME311	Fluid Mechanics and Machinery Laboratory	Changes have been made in 6 <sup>th</sup> and 8 <sup>th</sup> number of experiments.
7	15BEME312	Machine Drawing	Changes have been made in 3 <sup>rd</sup> and 4 <sup>th</sup> number of experiments.
8	15BEME313	Electrical Drives and Control Laboratory	Changes have been made in 7 <sup>th</sup> and 10 <sup>th</sup> number of experiments.
9	15BEME401	Strength of Materials	Changes has been made in units 3 and 5

10	15BEME402	Manufacturing Technology – II	Changes has been made in units 3 and 4	
11	15BEME403	Engineering Thermodynamics	Changes has been made in units 2 and 4	
12	15BEME404	Industrial Metallurgy	Changes has been made in units 4 and 5	
13	15BEME405	Kinematics of Machinery	Changes has been made in units 4 and 5  Changes has been made in units 2 and 4	
14	15BEME406	Engineering Metrology and	Changes has been made in units 3 and 4	
		Measurements	Changes has been made in units 3 and 4	
15	15BEME411	Strength of Materials and Metallurgy Laboratory	Changes have been made in 9 <sup>th</sup> and 10 number of experiments.	
16	15BEME412	Manufacturing Technology Laboratory	Changes have been made in 6 <sup>th</sup> and 7 number of experiments.	
17	15BEME501	Heat Power Engineering	Changes has been made in units 4 and 5	
18	15BEME502	Design of Machine Elements	Changes has been made in units 2 and 4	
19	15BEME503	Automobile Engineering	Changes has been made in units 2 and 3	
20	15BEME504	Dynamics of Machinery	Changes has been made in units 2 and 4	
21	15BEME511	Scientific Computing Laboratory	New Course	
22	15BEME512	Dynamics and Metrology Laboratory	Changes have been made in 9th and 10th number of experiments.	
23	15BEME513	Thermal Engineering Laboratory– I	Changes have been made in 5th and 10th number of experiments.	
24	15BEME601	Operations Research	Changes has been made in units 1 and 5	
25	15BEME602	Design of Transmission System	Changes has been made in units 4 and 5	
26	15BEME603	Heat and Mass Transfer	Changes has been made in units 2 and 4	
27	15BEME604	Engineering Economics and Financial Management	Changes has been made in units 3 and 4	
28	15BEME611	Computer Aided Modeling and Simulation Laboratory	Changes have been made in 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> , 9 <sup>th</sup> and 10 <sup>th</sup> number of experiments.	
29	15BEME612	Thermal Engineering Laboratory II	Changes have been made in 6 <sup>th</sup> and 10 <sup>th</sup> number of experiments.	
30	15BEME701	Professional Ethics, Principles of Management and Entrepreneurship Development	Changes has been made in units 2 and 3	
31	15BEME702	Finite Element Methods	Changes has been made in units 2 and 4	
32	15BEME703	Mechatronic Systems	Changes has been made in units 3 and 4	
33	15BEME711	CAE / CAM Laboratory	Changes have been made in 6 <sup>th</sup> and 10 <sup>th</sup> number of experiments.	
34	15BEME712	Mechatronics Laboratory	Changes have been made in 10 <sup>th</sup> , 11 <sup>th</sup> and 12 <sup>th</sup> number of experiments.	
35	15BEME801	Total Quality Management	Changes has been made in units 2 and 3	
36	15BEME5E01	Computer Aided Design	New Course	
37	15BEME5E02	Computer Integrated Manufacturing	Changes has been made in units 4 and 5	
38	15BEME5E03	Advanced Manufacturing Processes	Changes has been made in units 3 and 5	
39	15BEME5E04	Hydraulics and Pneumatics Power Control	Changes has been made in units 2 and 4	
40	15BEME6E01	Power Plant Engineering	Changes has been made in units 3 and 4	
41	15BEME6E02	Design of Jigs, Fixtures and Press Tools	Changes has been made in units 2 and 4	
42	15BEME6E03	Computational Fluid Dynamics	Changes has been made in units 3 and 5	
43	15BEME6E04	Failure Analysis and Design	New Course	
44	15BEME6E05	Renewable Energy Sources	Changes has been made in units 4 and 5	

45	15BEME6E06	Precision Engineering	Changes has been made in units 2 and 4	
46	15BEME6E07	Entrepreneurship Development	New Course	
47	15BEME6E08	Industrial Engineering	Changes has been made in units 3 and 4	
48	15BEME7E01	Design for Manufacture and Assembly	Changes has been made in units 1 and 2	
49	15BEME7E02	Gas Dynamics and Jet Propulsion	Changes has been made in units 1 and 5	
50	15BEME7E03	Industrial Robotics	Changes has been made in units 3 and 5	
51	15BEME7E04	Design and Analysis of Experiments	New Course	
52	15BEME7E05	Advanced I.C. Engines	New Course	
53	15BEME7E06	Additive Manufacturing	New Course	
54	15BEME7E07	Manufacture and Inspection of Gears	New Course	
55	15BEME7E08	Refrigeration and Air Conditioning	Changes has been made in units 2 and 5	
56	15BEME8E01	Machine Tool Design	New Course	
57	15BEME8E02	Computer Aided Drafting And Cost Estimation	New Course	
58	15BEME8E03	Quality Control and Reliability Engineering	Changes has been made in units 1 and 4	
59	15BEME8E04	Composite Materials	Changes has been made in units 3 and 5	
60	15BEME8E05	Production Planning and Control	Changes has been made in units 4 and 5	
61	15BEME8E06	Cogeneration and Waste Heat Recovery Systems	New Course	
62	15BEME8E07	Energy Conservation Methods and Energy Audit	New Course	
63	15BEME8E08	Non Destructive Testing	New Course	

The following open electives are newly introduced to other department students

SI. No	SUB. CODE	TITLE OF THE COURSE
1	15BEMEOE01	Introduction to MEMS
2	15BEMEOE02	Robotics
3	15BEMEOE03	Industrial Safety and Environment
4	15BEMEOE04	Transport Phenomena
5	15BEMEOE05	Introduction to Biomechanics

The UG programme BE Mechanical Engineering consists of 74 courses out of which 17 courses are in Science and Humanities and other allied engineering courses. The syllabus change is 35%.

## Ph. D Syllabi

About ten courses have been removed from the existing 19 courses and two new courses have been added. The change in syllabi content was:

Sl. No	Course Code	Course Name	Changes Made	
1	14RME202	Computational Methods	Removed	
2	14RME203	Modeling, Simulation and Analysis	Removed	
3	14RME301	Tribology in Design	Removed	
4	14RME303	Physics of Solar Engineering	Removed	
5	14RME304	Wind Energy Technologies	Removed	
6	14RME307	Automotive Systems	Removed	
7	14RME308	Lean Manufacturing Tools and Systems	Removed	
8	14RME309	Computational Fluid Dynamics	Removed	
9	14RME310	Industrial Robotics and Expert Systems	Removed	
10	14RME313	Refrigeration System Design	Removed	
11	15RME204	Quality Concepts in Design	New Course	
12	15RME205	Finite Element Analysis	New Course	

The Ph. D programme (Mechanical Engineering) consists of 11 courses. The syllabus change is 24%.

Frotessor & Head,

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REGISTRAR

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