

ADITYA ENGINEERING COLLEGE

An Autonomous Institution

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Recognised by UGC under sections 2(f) and 12(B) of UGC Act, 1956

Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Program Name : B.Tech. in Mechanical Engineering

Syllabus Revision for the Academic Year 2017-18				
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	171HS1T01	English - I	65
2	I	171BS1T01	Mathematics - I	40
3	I	171HS1T02	Environmental Studies	25
4	I	171BS1T03	Engineering Chemistry	25
5	I	171ES1T02	Engineering Mechanics	0
6	I	171ES1T01	Computer Programming	0
7	I	171HS1L01	English Communication Skills Lab - I	10
8	I	171BS1L01	Engineering Chemistry Lab	20
9	I	171ES1L01	Computer Programming Lab	40
10	II	171HS2T03	English - II	55
11	II	171BS2T02	Mathematics - II	10
12	II	171BS2T06	Mathematics - III	40
13	II	171BS2T07	Engineering Physics	10
14	II	171ES2T03	Engineering Drawing	5
15	II	171ES2T05	Basic Electrical and Electronics Engineering	0
16	II	171HS2L02	English Communication Skills Lab - II	40
17	II	171BS2L02	Engineering Physics Lab	10
18	II	171ES2L02	Engineering Work shop and IT work shop	0

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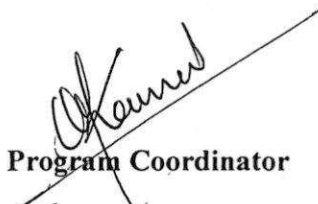
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
19	III	R1621031	Metallurgy & Materials Science	0
20	III	R1621032	Mechanics of Solids	0
21	III	R1621033	Thermodynamics	0
22	III	R1621026	Managerial Economics and Financial Analysis	0
23	III	R1621034	Fluid Mechanics & Hydraulic Machinery	0
24	III	R1621035	Computer Aided Engineering Drawing Practice	10
25	III	R1621036	Electrical And Electronics Engg. Lab	0
26	III	R1621037	Mechanics of Solids and Metallurgy Lab	0
27	IV	R1622031	Kinematics of Machinery	0
28	IV	R1622032	Thermal Engineering -I	0
29	IV	R1622033	Production Technology	0
30	IV	R1622034	Design of Machine members-I	0
31	IV	R1622035	Machine Drawing	0
32	IV	R1622036	Industrial Engineering and Management	0
33	IV	R1622037	Fluid Mechanics and Hydraulic Machinery Lab	0
34	IV	R1622038	Production Technology Lab	0
35	V	RT31031	Dynamics of Machinery	0
36	V	RT31032	Metal Cutting and Machine Tools	0
37	V	RT31033	Design of Machine members-I	0
38	V	RT31034	Instrumentation and Control systems	0
39	V	RT31035	Thermal Engineering -II	0
40	V	RT31036	Metrology	0

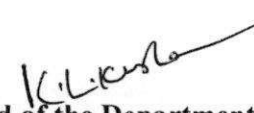
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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
41	V	RT31037	Machine Tools Lab	0
42	V	RT31038	Metrology and instrumentation Lab	0
43	V	RT31016	IPR&Patents	0
44	VI	RT32031	Operations Research	0
45	VI	RT32032	Interactive Computer Graphics	0
46	VI	RT32033	Design of Machine members-II	0
47	VI	RT32034	Robotics	0
48	VI	RT32035	Heat Transfer	0
49	VI	RT32036	Industrial Engineering Management	0
50	VI	RT32037A	Refrigeration and Air Conditioning	0
51	VI	RT32037B	Computational Fluid Dynamics	0
52	VI	RT32037C	Condition Monitoring	0
53	VI	RT32037D	Rapid Prototyping	0
54	VI	RT32038	Heat Transfer Lab	0
55	VII	RT41031	Automobile Engineering	0
56	VII	RT41032	CAD/CAM	0
57	VII	RT41033	finite Element Methods	0
58	VII	RT41034	Unconventional Machining Processes	0
59	VII	RT41035	MEMS	0
60	VII	RT41036	Nano technology	0
61	VII	RT41037	Material Characterization techniques	0
62	VII	RT41038	Design for Manufacture	0
63	VII	RT41039	Automation in Manufacturing	0

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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
64	VII	RT4103A	Industrial hydraulics and Pneumatics	0
65	VII	RT4103L	Simulation Lab	0
66	VII	RT4103M	Design/Fabrication project	0
67	VIII	RT42031	Production Planning and control	0
68	VIII	RT42032	Green Engineering Systems	0
69	VIII	RT42033A	Experimental Stress Analysis	0
70	VIII	RT42033B	Mechatronics	0
71	VIII	RT42033C	Advanced Materials	0
72	VIII	RT42033D	Power Plant Engineering	0
73	VIII	RT42034A	Non Destructive Evaluation	0
74	VIII	RT42034B	Advanced Optimization techniques	0
75	VIII	RT42034C	Gas Dynamics and Jet Propulsion	0
76	VIII	RT42034D	Quality & Reliability Engineering	0
77	VIII	RT42035	Project Work	0
Total number of courses in the academic year 2017-2018				= 77
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2017-18				9
Percentage of syllabus revision carried out in the academic year 2017-2018 = $(\frac{9}{77}) \times 100$				11.68


Program Coordinator


Head of the Department


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Head of the Department
Department of Mechanical Engineering
Aditya Engineering College (A)
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Department of Mechanical Engineering

Date: 01-06-2017

Minutes of the I Meeting of BOS Scheduled on 29/05/2017

The I meeting of the BOS of ME was held on 29/05/2017 at 10.00 AM. Mr. K.L. Kishore, Chairperson presided over the meeting.

Agenda 1.1: Welcome address by Chairperson-BOS

Mr. K.L. Kishore, BOS Chairperson invited the distinguished members of BOS to the I BOS Meeting.

Agenda 1.2: Discussion and ratification of the vision and mission of the department and Program Educational Objectives (PEOs). Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the programs under the department

The members of BOS discussed and ratified of the Vision and Mission of the department and Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the Programs under the Department.

Agenda 1.3: Discussion on proposed AR17 program structures of B.Tech (ME) and M.Tech (TE) and ratification of the same.

BOS members approved B.Tech and M.Tech course structure and ratified the same.

After long discussions with the BOS members on the course structure of B.Tech, the following suggestions are made:

- Suggested to include Green Engineering Systems as an elective in VII and the same is approved.
- Suggested to include basics of cryogenics in Refrigeration & Air conditioning subject for VI semester.
- Suggested to include determination of fuel properties as an additional experiment in thermal engineering lab-I for IV semester.
- Suggested to include special curves and conversion of orthographic to isometric projection in III semester
- Suggested to include theory of machines laboratory in V semester and machine tools laboratory in VI semester and the same is approved.

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- Suggested to include comparison of belt drives with other power transmitting devices like chains and gears, in elements of mechanical engineering in I semester for Petroleum Technology branch and the same is approved.
- Suggested to include mechanical engineering topics in place of strength of materials in elements of mechanical engineering I semester for Civil Engineering branch and the same is approved.
- Suggested to increase the number of open elective compared to focus more on the upcoming technologies.
- The percentage of courses revised in the academic year 2017-2018 for B.Tech (ME) is 11.68 % and M.Tech (TE) Program is 6%. The list of courses revised in the academic year 2017-18 is enclosed as Annexure-I .

Agenda 1.4: Discussion on proposed AR17 B.Tech (ME), M.Tech (TE) Programmes I&II semesters syllabus and ratification of the same.

BOS members approved B.Tech (ME) and M.Tech (TE) I&II semesters syllabus and ratified the same.

Agenda 1.5: Ratification of the proposed model question papers for the sessional and external examinations of AR17 B.Tech (ME) and M.Tech (TE) programs

The members of BOS have approved the model question papers for the sessional and external examinations for the pattern and the same is approved.

Agenda 1.6: Finalization of Experts from reputed institutions for setting question paper and valuation of answer scripts.

The members of BOS accepted the list consisting of the names of reputed autonomous institutions for setting question paper and valuation of answer scripts.

Agenda 1.7: Analysis of Results

The BOS chairperson presented the odd and even semesters pass percentage for the academic year 2016 - 2017. The BOS members noted the same.

Agenda 1.8: Analysis of Students Feedback & Action Taken Report

BOS Chairperson expressed that the student feedback & action taken report process initiated at end of each semester.

Agenda 1.9: Analysis of stakeholder's feedback on Curriculum

BOS Chairperson presented the analysis report of stakeholder's feedback on Curriculum. The BOS members noted the same and the action taken report is enclosed in Annexure II.

Agenda 1.10: Any other item with the approval of Chairperson.

- Suggested to reduce Employability skills credits from 4 to 2.
- Suggested to increase credits for Main Project.
- Suggested to increase the number of course which improvise the student employability skills.

Agenda 1.11: Scheduling of next Board of Studies meeting.

The next BOS meeting is tentatively scheduled in the month of November 2017.

Agenda 1.12: Vote of Thanks

Mr. K.L. Kishore, BOS Chairperson presented the Vote of thanks.


BOS Chairperson

Head of the Department
Department of Mechanical Engineering
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Annexure-I

List of Courses Revised in the Academic Year 2017-18

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (ME)	I	171HS1T01	English-I
2	B. Tech (ME)	I	171BS1T01	Mathematics-I
3	B. Tech (ME)	I	171HS1T02	Environmental Studies
4	B. Tech (ME)	I	171BS1T03	Engineering Chemistry
5	B. Tech (ME)	I	171BS1L01	Engineering Chemistry Lab
6	B. Tech (ME)	I	171ES1L01	Computer Programming Lab
7	B. Tech (ME)	II	171HS2T03	English-II
8	B. Tech (ME)	II	171BS2T06	Mathematics-III
9	B. Tech (ME)	II	171HS2L02	English Communication Skills Lab-II
10	M. Tech (TE)	II	172TE1E02	Refrigeration & Cryogenics
11	M. Tech (TE)	II	172TE2E06	Solar Energy Technology

K.L. K
BOS Chairperson

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Annexure II

Action Taken Report on Stakeholders Feedback in the Academic Year 2017-18

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	1.8	Better to introduce skill oriented courses so that student may get extra skill.	As suggested from the employer, value added courses will be initiated.
2	1.3	It is better to have electives in relation with the technological advancements.	Basics of cryogenics is included in the elective course Refrigeration & Air conditioning (VI Semester).
3		It is better to introduce 2D and 3D wireframe modelling using industry software's.	Special curves and conversion of orthographic to isometric projection is included in the course CAEDP.
4	1.9	Requested to modify the question paper pattern.	As per the discussion with the experts, the suggestions will be implemented.
5		Provide campus trainings on aptitude and reasoning.	Employability skill I, II, III & IV courses are included in AR 17.
6		It is better to introduce vibration subject in the curriculum to have knowledge on it and its effects.	The course Mechanical Vibrations is included in V semester as Professional Elective.
7	1.3	Students should have knowledge on sustainable design, life cycle cost and pollution prevention on environment.	Green Engineering Systems is included as an elective in VII semester
8	1.9	Collaboration and team work must be employed to students to have brain storm sessions on the research and industry ready during the group discussions and JIT during the placement.	Student division has been made as a group consisting of 5 – 6 members with seminars and GD's to enhance students ability towards research.

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9		Better the student get enough exposure to company and its implementations.	More industrial visits included.
10	1.8	It is better to reduce number of subjects in the final year so that student may concentrate on placement.	VIII semester subjects are decreased to 2 courses along with project.
11		Better to introduce the self-study courses.	MOOCS initiated into the curriculum.
12		Better to remove dress code from last semester.	Discussions made with principal and dean academics, necessary action will be prevailed.
13	1.9	Student participation is required for the project to be completed successfully.	As per suggestions, projects are encouraged for students and various industry visits will be planned.
14	1.3	Better to provide more electives.	As per the suggestions, more PE's and OE's will be introduced.
15	1.9	It is better to change the question paper pattern in the semester examination.	As suggested and discussion with experts, to overcome the deficiency new question paper will be formulated for the final semester examination.
16	1.8	Better to provide more technical sessions, webinars on advanced topics.	As suggested, industrial orientation sessions from industry experts and global engineers will be initiated.

K. Lakshmi
BOS Chairperson

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