

Charotar University of Science & Technology
C.S. Patel Institute of Technology
Department of Mechanical Engineering

Academic Year: 2016-17

Date: 05/07/2017

Feedback Analysis Report of Stakeholders on Curriculum

Feedback of Students:

1. More emphasis should be given to industrial training.
2. Metal casting should be taught as special course.
3. SWAYAM/NPTEL courses should be offered to students in consider as a part of internal evolution.
4. Videos and animation should be expose to students for easy understanding of difficult topics.

Feedback of Employers:

1. Technical fundamentals of the subjects like design, metallurgy, manufacturing process, metrology, quality and management need to be integrated with curriculum.
2. Hands on practise required more for the visualization and better understanding.
3. Specialization required on boiler, hydraulic pneumatic, robotics, PLC and NDT methods.
4. Focus on practical exposure and skill development.

Feedback of Alumni:

1. Various techniques for getting higher fibre volume fraction in polymer matrix composite should be taught in the composite material subject.
2. The syllabus specifically mechanically designed is very conventional, it should be revised to meet the industrial needs.
3. Software based learning should be implemented.

Feedback of Teachers:

1. Practical hours for manufacturing objects should be increased.
2. Tutorial sessions should be implemented for the practise of the drawing in engineering graphics subject.

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3. Advance materials like smart and nano-materials should be incorporated into the course "Material science and technology"
4. Practical related to material testing and characterization should be included in the laboratory.
5. Include the heat exchanger design incorporated with the ASME codes.



Dr. Vijay Chaudhary..

Associate Professor & Head, MED, CSPIT



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C.S. Patel Institute of Technology
Department of Mechanical Engineering

Year: 2016-17

Action taken report on feedback of Stakeholders on Curriculum

1. University level electives were included in curriculum for interdisciplinary knowledge in B.Tech programme. (annexure I)
2. Industrial visits are increased and expert talks from industry personal are Conducted implemented for better exposure in subject knowledge. (annexure II)
3. Revision of syllabus has been done keeping academic and industry experts in loop.
4. New experiments are introduced in various subjects to enhance domain knowledge. Seminars are organized with industrial experts on relevant topics like hydraulic machines, corrosion, micro machining and central air conditioning etc.
5. Certain topics from the subject heat and mass transfer, kinematics of machine and dynamics of machines are amended in the curriculum based on the suggestions given by academic experts. (annexure I)
6. Courses such as metal casting technology, advanced materials, finite element methods and instrumentation and control are offered as an elective in B.Tech programme. (annexure I)
7. Software such as Solidworks, Fusion 360, Ansys etc. taught to students during laboratory sessions.
8. Material testing and characterization experiment is taught to B.Tech students during laboratory sessions.



Dr. Vijay Chaudhary,

Associate Professor & Head, MED, CSPIT

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Annexure I

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CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)
FACULTY OF TECHNOLOGY & ENGINEERING
Department of Mechanical Engineering

26th August, 2017

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held at August 26, 2017.

Following members were present:

Sr. No	Members/Invitee		Signature
1.	Dr. A A Shaikh	Associate Professor, Mechanical Engineering Department, SVNIT - Surat	<i>Shaikh A A</i> 26/8/2017
2.	Dr. Piyush Gohil	Associate Professor, Mechanical Engineering Department, M S University - Baroda	<i>Piyush Gohil</i> 26/8/2017
3.	Mr. Bhavin Bhatt	General Manager (Engineering), EIMCO ELECON (INDIA) LTD, Vallabh Vidyanagar	<i>Bhavin Bhatt</i>
4.	Dr. A D Patel	Professor, Department of Mechanical Engineering, CSPIT	<i>A D Patel</i>
5.	Dr. Vijay Chaudhary	Head, Department of Mechanical Engineering, CSPIT	<i>Vijay Chaudhary</i>
6.	Dr. Mayur Sutaria	Associate Professor, Department of Mechanical Engineering, CSPIT	—
7.	Dattatraya Subhedar	Assistant Professor, Department of Mechanical Engineering, CSPIT	<i>Dattatraya Subhedar</i>
8.	Dr. Gajanan Patange	Assistant Professor, Department of Mechanical Engineering, CSPIT	<i>Gajanan Patange</i>
9.	Kamlesh Chauhan	Assistant Professor, Department of Mechanical Engineering, CSPIT	<i>Kamlesh Chauhan</i>

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CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
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Minutes – Meeting of Board of Studies
CHAMOS Matrusanstha Department of Mechanical Engineering

Date : August 26, 2017, Saturday

Time : 10:00 am

Venue : Department of Mechanical Engineering, CSPIT, CHARUSAT Campus

The meeting of the Board of Studies, Mechanical Engineering, Faculty of Technology and Engineering, Charotar University of Science and Technology (CHARUSAT) was held as per schedule.

Following members were present:

- | | | | |
|----|-------------------------|------------------|--|
| 1. | Mr. Vijay Chaudhary | Chairman; | Associate Professor & Head,
Department of Mechanical Engineering, CSPIT |
| 2. | Dr A D Patel | Member; | Professor,
Department of Mechanical Engineering, CSPIT |
| 3. | Mr. Dattatraya Subhedar | Member; | Assistant Professor,
Department of Mechanical Engineering, CSPIT |
| 4. | Mr. Gajanan Patange | Member; | Assistant Professor,
Department of Mechanical Engineering, CSPIT |
| 5. | Mr. Kamlesh Chauhan | Member; | Assistant Professor,
Department of Mechanical Engineering, CSPIT |
| 6. | Dr A. A. Shaikh | Member; | Associate Professor, Mechanical Engineering
Department, SVNIT - Surat |
| 7. | Dr. Piyush Gohil | Member | Associate Professor, Mechanical Engineering
Department, M S University - Vadodara |
| 8. | Mr. Bhavin Bhatt | Invitee; | General Manager, EIMCO ELECON (INDIA) LTD. -
Vallabh Vidyanagar |

Initiation:

Chairman welcomed all the members of Board of Studies. The minutes of the twelfth meeting of Board of Studies held on June 15, 2017 was summarized.

Agenda, Proceeding & Resolutions:-

Item – 13.01: For Discussion, To approve the teaching and examination scheme for all the semesters of B Tech program with CBCS scheme effective from 2016-17.

Proceedings – 13.01:

Teaching & examination scheme of B Tech program for all semester courses is discussed in detail. Programme electives are offered from third year onwards. In third year and final year,

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Minutes BoS Meeting

“Industrial Training” courses are incorporated. It will include seminar report writing and presentation on industrial training underwent by the student at the end of the 4th & 6th semester; during semester break.

Resolution - 13.01:

The suggested changes are incorporated in the teaching & examination scheme of B Tech program with CBCS effective from 2016-17 and attached as an Annexure-I.

Item – 13.02: For Discussion; To approve the detailed syllabi for the university elective courses of second year B Tech CBCS effective from 2017-18.

Proceedings – 13.02:

Several UG level university elective courses are offered by various Faculty/Department of CHARUSAT from academic year 2017-18. Following courses related to Mechanical Engineering are introduced as university elective courses in second year B Tech CBCS effective from 2017-18.

Course Code	Name of Course	Semester offered
ME251	Engineering Drawing	3 rd Semester
ME252	Material Science	4 th Semester

Resolution – 13.02:

The detailed syllabi for the university elective courses of second year B Tech CBCS effective from 2017-18 are approved and attached herewith as an Annexure-II.

Item – 13.03: For Discussion; To approve the teaching scheme and detailed syllabus for third year B Tech CBCS courses effective from 2018-19.

Proceedings – 13.03:

Syllabi for third year B Tech CBCS courses are discussed in detail. Members suggested syllabus revision in Design Concept & Machine Drawing, Heat & Mass Transfer, Numerical & Statistical Methods, I.C. Engines, Refrigeration & Air Conditioning, Mechanical Measurement & Metrology, Metal Casting Technology, Advanced Material, Finite Element Methods and Instrumentation & Control are introduced as an elective course for first time.

Resolution – 13.03:

The suggested changes are incorporated in the syllabi of third year B Tech program with CBCS effective from 2018-19 and attached as an Annexure-III.

Item – 13.04: For Discussion; Additional item(s) – Review of University Exam Question Papers, Examiner Panel, Placement Records, Result Analysis, NBA Accreditation Status & OBE, Synopsis submission and SWAYAM online courses.

Proceedings & Resolution – 13.04:

Review of University Exam Question Papers:

Members reviewed the examiner's feedback on university exam question papers and observed the topics in which student performance was not up to mark. Members also discussed about deviation in marks observed from predefined marks as per weightage of the units/topics in the university exam question paper. Examiner's feedback and Question Papers analysis report is attached herewith as an Annexure IV.

Members suggested that assignments/tutorials containing numerical and analytical questions should be provided to the students. Members agree that in the university exam question paper, around 10% deviation in marks as compared to predefined marks as per weightage of the units/topics in the course syllabus is allowed to account for uncertainty and to facilitate flexibility in the contents.

Examiner Panel:

New examiners are added in the exam panel. Details of existing examiners are also updated and attached as an Annexure V.

Placement Records:

Placement statistics & packages offered for 2016-17 batch were presented (Annexure VI). To enhance the training and placement activities, aptitude test and mock practice of campus drive are being conducted for students.

Institute-industry interaction needs to be improved for enhancing training and placement activities and each faculty member is being involved in the institute-industry interaction.

Result Analysis:

Results of academic year 2016-17 was presented (Annexure VII). The members deliberated on the courses which were having more than 10% failure. Following suggestions were given to improve the results in future.

Continuous Evaluation of the students can be done by taking quiz's, unit tests, seminars, group activities etc. to evaluate their conceptual understanding and analytical skills. Analysis and feedback of make-up and remedial classes to improve the performance of students can be carried out to strengthen the same.

NBA Accreditation Status & Outcome Based Education:

Department has applied for NBA re-accreditation and clear the pre-qualifier stage. Preparation of Self Assessment Report is under progress. Department has already implemented Outcome Based Education system.

Synopsis submission:

Department of Mechanical Engineering, Faculty of Technology & Engineering received synopsis of research scholar during 2016 - 2017. The details of synopsis submission are attached as an Annexure VIII.

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Synopsis & panel of referees of research scholars are placed before the BoS members. Members approved the synopsis & panel of referees.

SWAYAM online courses

Chairman briefed about the university stand towards digital initiative for higher education. SWAYAM online courses are to be identified, which can be offered to the students of Mechanical Engineering and as well seek transfer of credits.

Presently, four courses of Mechanical Engineering are offered by SWAYAM. The content of these courses are compared with existing courses offered by the department as shown in Annexure IX. Comparison of courses shows that it is not possible to offer the SWAYAM course for transfer of credits as on now. We can opt the SWAYAM courses in future.

The meeting ended with a vote of thanks by the Chairman.



Vijay Chaudhary
Chairman
Date: 26/08/2017



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Minutes BoS Meeting

Annexure III

(Item – 14.04)

Proposed Teaching and Examination Scheme

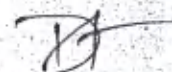
for

M Tech Thermal Engineering
(CBCS)

Effective From

2018-19

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CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY (CHARUSAT)

TEACHING & EXAMINATION SCHEME FOR B TECH PROGRAMME IN MECHANICAL ENGINEERING (CBCS)

Level	Course Code	Course Title	Teaching Scheme				Examination Scheme				Total
			Contact Hours			Credit	Theory		Practical		
			Theory	Practical	Total		Internal	External	Internal	External	
							Internal	External	Internal	External	
	HS124A	Professional Communication	2		2	2	0	0	30	70	100
	MA34X	Numerical & Statistical Methods	3	2	5	4	30	70	25	25	150
	ME341	Design Concepts & Machine Drawing	4	2	6	5	30	70	25	25	150
	ME342	Heat & Mass Transfer	4	2	6	5	30	70	25	25	150
	ME343	Mechanical Vibrations	3	2	5	4	30	70	25	25	150
	ME37X	Programme Elective - I	3	2	5	4	30	70	25	25	150
					29	24					850
Level 3	HS125A	Society, Governance & International Studies	2		2	2	25	25	25	25	100
	ME344	Refrigeration and Air Conditioning	3	2	5	4	30	70	25	25	150
	ME345	Mechanical Measurement & Metrology	3	2	5	4	30	70	25	25	150
	ME346	Dynamics of Compressible Fluid	4	2	6	5	30	70	25	25	150
	ME347	Design of Machine Elements-I	3	0	3	3	30	70	0	0	100
	ME348	Production Technology	3	2	5	4	30	70	25	25	150
	ME37X	Programme Elective - II	3	0	3	3	30	70	0	0	100
					29	25					900

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Annexure II

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Charotar University of Science & Technology
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CHAMOS Matrusanstha Department of Mechanical Engineering

Details of Industrial Visit

Sr. No	Sem.	Place of Visit	Dates	No. of Students
1	5 th	IGTR-Ahmedabad CIPET-Ahmedabad	21/09/2017	150
2	3 rd	G & L Profiles and Equipments Pvt. Ltd., Vadodara	12/10/2017	130
3	1 st M. Tech	ISRO- Ahmedabad	07/10/2017	22
4	4 th	SPRERI, Vallabh Vidhyanagar	15/02/2018	120
5	8 th	Wanakbori Thermal Power Station, Wanakbori.	14/03/2018	120

Details of Expert talk

Sr. No.	Name of Expert	Background	Topics Covered	Target Audience	Dates
1	Mr. R.V. Sahastrabuddhe	committee member of ISHRAE	Basics of Central Air Conditioning System	B.tech 4 th & 6 th sem	09/08/2017
2	Mr. Jigar R. Patel	Invent India Innovation Pvt. Ltd., Ahmadabad	IPR & Patent Issues	M.tech & faculty members	14/10/2017
3	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYCE, FYIT (DEPSTAR)	12/02/2018
4	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYCE (CSPIT)	13/02/2018
5	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYIT (CSPIT)	15/02/2018
6	Prof. Rohit Bhatt	BVM Engineering College	Isometric View & Isometric Projection View	FYEC (CSPIT) & FYCSE (DEPSTAR)	19/02/2018

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C.S. Patel Institute of Technology
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7	Prof Ila Jha	G H Patel College of Engineering & Technology	Imperfections in Solids	SYME (CSPIT)	06/03/2018
8	Prof K D Bhatt	BVM Engineering College	Corrosion and degradation of metals	SYME (CSPIT)	07/03/2018
9	Mr. Darshan Shah	D-vivid consulting company	Career Guidance & How to Enhance your Profile for USA & Canada Application (Master Program")	SYME (CSPIT),TYME (CSPIT),Final Year	27/03/2018
10	Dr. Pankaj Gohil	Sarvajanik College of Engineering & Technology, Surat	Introduction to Hydraulic Turbines and Pumps	TYME	29/01/18
11	Dr. Sanket Bhavsar	G H Patel College of Engineering & Technology	Micro machining techniques	M.Tech (CAD/CAM & AMT)	08/03/2018
12	Mr. Rajan Shah	Forbes Marshall Pvt.Ltd. Ahmedabad	Energy Efficiency Opportunities in India & Role of Mechanical Engineers	Prefinal year students	07/04/2018


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