



DEPARTMENT OF CHEMICAL ENGINEERING

Minutes of CDMC Meeting- B.Tech Chemical Engineering

16-03-2016

The members of Curriculum Design and Monitoring Committee for B.Tech Chemical Engineering program gathered on 16-03-2016 in HoD Cabin, Chemical Engineering Department. The following members attended the meeting.

S.No	Members	Designation	Signatures
1.	Dr. M. Ramesh Naidu Professor & Head	Chairman	
2.	Mr. P. Ashok Kumar	Member	
3.	Mr. P. Bangariah	Member	
4.	Mr. B.Sumalatha	Member	

**Agenda of the meeting**

Analysis of the feedback collected from various stakeholders such as Alumni, Employers, Faculty, Parents and Students during the academic year 2015-16.

**1. The following are the important points of analysis obtained from various stakeholders:**

The feedback analysis reveals that laboratory sessions help to improve the student's technical skills and the courses placed in the curriculum supports both the advanced learners as well as slow learners.

Time to time meetings was conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of the students by considering their Employer's feedback.

The feedback analysis reveals that laboratory sessions help to improve the student's technical skills and the courses placed in the curriculum supports both the advanced learners as well as slow learners.

Detailed feedback analysis report is enclosed as Annexure-I



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2. Chairman – CDMC has prepared the draft curriculum to the members. (R16 Curriculum)

Following are the changes recommended by the members of CDMC in the revised curriculum course structure.

- (a) Most of the theory courses are integrated with laboratory session to improve the practical knowledge.
- (b) Reduce the credits, as major institutions are offering below 200 credits, it will provide time to students for self-learning.
- (c) Recommend courses related to life and employability skills.
- (d) Integrate modular course to expose the students in industry prospective and advised to invite industry person to offer it.
- (e) Introduce minor projects in most of the courses to enrich practical skills.

The outcomes of the meeting will be conveyed before the BoS for further discussion and recommendations.

*Ramesh*  
Chairman, CDMC

### Annexure -I

#### Feedback from Alumni 2015-16 (Academic Year) - UG – B. Tech (CHEM)

Feedback has been received from the Alumni on the following seven parameters:

- Q1 B.Tech – Chemical Engineering Curriculum has paved a good foundation in understanding the basic engineering concepts
- Q2 Course Contents of Curriculum in tune with the Program Outcomes
- Q3 B.Tech – Chemical Engineering Curriculum imparted all the required Job Oriented Skills for its core and allied industries
- Q4 Professional and Open Electives of B.Tech – Chemical Engineering Curriculum served the technical advancements needed to serve in the industry
- Q5 The activities, experiments planned during laboratory sessions are sufficient in the curriculum
- Q6 Are you in a position to compete with your peers from other Universities
- Q7 Current Regulation Curriculum is superior than your studied Curriculum

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent ( $\geq 4$ ); Very Good ( $\geq 3.5$  &  $< 4$ ); Good ( $\geq 3$  &  $< 3.5$ ); Moderate ( $> 2$  &  $< 3$ ) and Unsatisfactory ( $< 2$ ).

The result derived in terms of percentage of Alumni with common views, average score, and ratings is presented in Table 1.

**Table 1: Analysis of feedback from Alumni 2015–16**

Parameters	Rating 5	Rating 4	Rating 3	Rating 2	Rating 1	Average Score	Rating
Q1	36.4	36.4	9.1	18.2	0	3.913	Very Good
Q2	45.5	18.2	27.3	9.1	0	4.004	Excellent
Q3	27.3	9.1	18.2	18.2	27.3	2.912	Moderate
Q4	36.4	9.1	27.3	9.1	18.2	3.367	Good
Q5	27.3	18.2	9.1	18.2	27.3	3.003	Good
Q6	36.4	9.1	9.1	9.1	36.4	3.003	Good
Q7	45.5	18.2	9.1	0	27.3	3.549	Very Good



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Parameter 'B.Tech – Chemical Engineering Curriculum has paved a good foundation in understanding the basic engineering concepts' is rated Very Good with average rating as 3.913.

Parameter 'Course Contents of Curriculum in tune with the Program Outcomes' is rated Excellent with average rating as 4.004.

Parameter 'B.Tech – Chemical Engineering Curriculum imparted all the required Job Oriented Skills for its core and allied industries?' is rated moderate with average rating as 2.912.

Parameter 'Professional and Open Electives of B.Tech – Chemical Engineering Curriculum served the technical advancements needed to serve in the industry' is rated Good with average rating as 3.367.

Parameter 'The activities, experiments planned during laboratory sessions are sufficient in the curriculum' is rated Good with average rating as 3.003.

Parameter 'Are you in a position to compete with your peers from other Universities' is rated Good with average rating as 3.003.

Parameter 'Current Regulation Curriculum is superior than your studied Curriculum' is rated Very Good with average rating as 3.549.

Times to time meetings were conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of the students.

The feedback analysis reveals that laboratory sessions help to improve the student's technical skills and the courses placed in the curriculum supports both the advanced learners as well as slow learners.

#### **Feedback from Employers 2015-16 (Academic Year) - UG – B. Tech (CHEM)**

Feedback has been received from the Employer on the following five parameters:

- Q1 Course Contents of B.Tech - Chemical Engineering Curriculum are in tune with the Program Outcomes.
- Q2 Course Contents designed to enable skills and knowledge required for Chemical and allied Industry Demands.
- Q3 Professional Electives and Open Elective are in-line with the technological advancements.
- Q4 Curriculum imparted all the required Skills for Chemical and relevant industry related Skills.
- Q5 Problem Solving and Soft Skills acquired by the students through the course contents will enable them to be placed in MNC

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent ( $\geq 4$ ); Very Good ( $\geq 3.5$  &  $< 4$ ); Good ( $\geq 3$  &  $< 3.5$ ); Moderate ( $> 2$  &  $< 3$ ) and Unsatisfactory ( $< 2$ )

The result derived in terms of percentage of Employers with common views, average score, and ratings is presented in Table 2.

**Table 2: Analysis of feedback from Employers 2015–16**

Parameters	Rating 5	Rating 4	Rating 3	Rating 2	Rating 1	Average Score	Rating
Q1	60	40	0	0	0	4.6	Excellent
Q2	60	0	40	0	0	4.2	Excellent
Q3	60	40	0	0	0	4.6	Excellent
Q4	60	20	20	0	0	4.4	Excellent
Q5	100	0	0	0	0	5	Excellent

Parameter 'Course Contents of B.Tech – Chemical Engineering Curriculum are in tune with the Program Outcomes.' is rated Excellent with average score as 4.6.

Parameter 'Course Contents designed to enable skills and knowledge required for spinning, weaving, knitting, processing and garment industries.' is rated Excellent with average score as 4.2.

Parameter 'Professional Electives and Open Elective are in-line with the technological advancements.' is rated Excellent with average score as 4.6.

Parameter 'Curriculum imparted all the required Skills for Chemical Process Industries and Allied industry.' is rated Excellent with average score as 4.4.

Parameter 'Problem Solving and Soft Skills acquired by the students through the course contents will enable them to be placed in MNC' is rated Excellent with average score as 5.

Times to time meetings were conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of the students by considering their Employer's feedback.

**Feedback from Faculty 2015-16 (Academic Year) - UG – B. Tech (CHEM)**

Feedback has been received from the Faculty on the following nine parameters: (2015-16)

- Q1 Course Contents of B.Tech - Chemical Engineering Curriculum are in tune with the Program Outcomes.
- Q2 Course Contents of B.Tech - Chemical Engineering enhances the Problem Solving Skills and Core competencies
- Q3 Allocation of Credits to the Courses is appropriate.
- Q4 Contact Hour Distribution among the various Course Components (LTP) is appropriate.
- Q5 Electives cover the frontier technologies in the field of Chemical and allied industries
- Q6 Curriculum providing opportunity towards Self learning to realize the expectations
- Q7 Composition of Basic Sciences, Engineering, Humanities and Management Courses are appropriate.
- Q8 Laboratory sessions sufficient to improve the technical skills of students
- Q9 Sufficient courses available to improve the technical competency and leadership skills among the students.

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent ( $\geq 4$ ); Very Good ( $\geq 3.5$  &  $< 4$ ); Good ( $\geq 3$  &  $< 3.5$ ); Moderate ( $\geq 2$  &  $< 3$ ) and Unsatisfactory ( $< 2$ ).

The result derived in terms of percentage of Faculty with common views, average score, and ratings is presented in Table 3.

**Table 3: Analysis of feedback from Faculty 2015–16**

Parameters	Rating 5	Rating 4	Rating 3	Rating 2	Rating 1	Average Score	Rating
Q1	75	8.3	16.7	0	0	4.583	Excellent
Q2	75	25	0	0	0	4.75	Excellent
Q3	58.3	41.7	0	0	0	4.583	Excellent
Q4	41.7	50	8.3	0	0	4.334	Excellent
Q5	58.3	41.7	0	0	0	4.583	Excellent
Q6	45.8	29.2	25	0	0	4.208	Excellent
Q7	41.7	58.3	0	0	0	4.417	Excellent
Q8	33.3	66.7	0	0	0	4.333	Excellent
Q9	41.7	50	8.3	0	0	4.334	Excellent



Parameter 'Course Contents of B.Tech - Chemical Engineering Curriculum are in tune with the Program Outcomes' is rated Excellent with average rating as 4.583.

Parameter 'Course Contents of B.Tech - Chemical Engineering enhances the Problem Solving Skills and Core competencies' is rated Excellent with average rating as 4.375.

Parameter 'Allocation of Credits to the Courses are appropriate,' is rated Excellent with average rating as 4.75.

Parameter 'Contact Hour Distribution among the various Course Components (LTP) are appropriate.' is rated Excellent with average rating as 4.334.

Parameter 'Electives cover the frontier technologies in the field of Chemical and allied industries' is rated Excellent with average rating as 4.583.

Parameter 'Curriculum providing opportunity towards Self learning to realize the expectations' is rated Excellent with average rating as 4.208.

Parameter 'Composition of Basic Sciences, Engineering, Humanities and Management Courses are appropriate.' is rated Excellent with average rating as 4.417.

Parameter 'laboratory sessions sufficient to improve the technical skills of students' is rated Excellent with average rating as 4.333.

Parameter 'Sufficient courses available to improve the technical competency and leadership skills among the students.' is rated Excellent with average rating as 4.334.

Times to time meetings were conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of the students.

#### **Feedback from Parents 2015-16 (Academic Year) - UG – B. Tech (CHEM)**

Feedback has been received from the parents on the following five parameters:

- |    |  |
|----|--|
| Q1 | Course Contents of B.Tech - Chemical Engineering Curriculum are in tune with the Program Outcomes.                                 |
| Q2 | B.Tech - Chemical Engineering Curriculum helped improving technical knowledge acquired by your son / daughter in our University.   |
| Q3 | B.Tech - Chemical Engineering Curriculum helped improving Academic, Emotional Progression of your son / daughter in our University |
| Q4 | Proficiency of your son / daughters on par with the students from other Universities/Institutes                                    |
| Q5 | Course Contents designed to enable skills and knowledge required for chemical industries.  |



The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent ( $\geq 4$ ); Very Good ( $\geq 3.5$  &  $< 4$ ); Good ( $\geq 3$  &  $< 3.5$ ); Moderate ( $> 2$  &  $< 3$ ) and Unsatisfactory ( $< 2$ ).

The result derived in terms of percentage of Parents with common views, average score, and ratings is presented in Table 4.

Table 4: Analysis of feedback from parents 2015–16

Parameters	Rating 5	Rating 4	Rating 3	Rating 2	Rating 1	Average Score	Rating
Q1	45	35	20	0	0	4.25	Excellent
Q2	45	30	20	5	0	4.15	Excellent
Q3	40	45	15	0	0	4.25	Excellent
Q4	45	40	15	0	0	4.3	Excellent
Q5	45	35	15	5	0	4.2	Excellent

Parameter 'Course Contents of B.Tech - Chemical Engineering Curriculum are in tune with the Program Outcomes.' is rated Excellent with average score as 4.25.

Parameter 'B.Tech - Chemical Engineering Curriculum helped improving technical knowledge acquired by your son / daughter in our University' is rated Excellent with average score as 4.15.

Parameter 'B.Tech - Chemical Engineering Curriculum helped improving Academic, Emotional Progression of your son / daughter in our University' is rated Excellent with average score as 4.25.

Parameter 'Proficiency of your son / daughters on par with the students from other Universities/Institutes' is rated Excellent with average score as 4.3.

Parameter 'Course Contents designed to enable skills and knowledge required for chemical industries.' is rated Excellent with average score as 4.2.

Times to time meetings were conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of the students by considering their parent's feedback.





### Feedback from Students 2015-16 (Academic Year) - UG – B. Tech (CHEM)

Feedback has been received from the students on the following nine parameters:

- Q1 Course Contents of B.Tech - Chemical Engineering Curriculum are in tune with the Program Outcomes
- Q2 Course Contents designed to enable skills and knowledge required for process Design, optimization, modeling, quality control, analysis and hazardous chemicals handling for several chemical and allied industries.
- Q3 Courses placed in the B.Tech - Chemical Engineering curriculum serves the needs of both Advanced and Average learners.
- Q4 Contact Hour Distribution among the various Course Components (LTP) is Satisfiable.
- Q5 Electives have enabled the passion to learn new technologies in emerging areas
- Q6 B.Tech - Chemical Engineering Curriculum providing opportunity towards Self learning to realize the expectations
- Q7 Composition of Basic Sciences, Engineering, Humanities and Management Courses is a right mix and appropriate in B.Tech - Chemical Engineering curriculum.
- Q8 No. of Laboratory sessions sufficient to improve the technical skills
- Q9 Sufficient courses available to improve technical competency and leadership skills among the students.

The categorization of rating is as follows: Strongly Agree (5), Agree (4), Moderate (3), Disagree (2) and Strongly Disagree (1).

Feedback Analysis is carried based on Average Satisfaction Rating. Rating categorization is carried based on Excellent ( $\geq 4$ ); Very Good ( $\geq 3.5$  &  $< 4$ ); Good ( $\geq 3$  &  $< 3.5$ ); Moderate ( $> 2$  &  $< 3$ ) and Unsatisfactory ( $< 2$ ).

The result derived in terms of percentage of students with common views, average score, and ratings is presented in Table 5.

Table 5: Analysis of feedback from students 2015–16

Parameters	Rating 5	Rating 4	Rating 3	Rating 2	Rating 1	Average Score	Rating
Q1	69.7	24.2	6.1	0	0	4.636	Excellent
Q2	81.8	12.1	6.1	0	0	4.757	Excellent
Q3	66.7	27.3	6.1	0	0	4.61	Excellent
Q4	69.7	24.2	6.1	0	0	4.636	Excellent
Q5	69.7	12.1	18.2	0	0	4.515	Excellent
Q6	69.7	24.2	6.1	0	0	4.636	Excellent
Q7	60.6	27.3	12.1	0	0	4.485	Excellent
Q8	75.8	21.2	3	0	0	4.728	Excellent
Q9	56.1	43.9	0	0	0	4.561	Excellent



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Parameter 'Course Contents designed to enable skills and knowledge required for process Design, optimization, modeling, quality control, analysis and hazardous chemicals handling for several chemical and allied industries.' is rated Excellent with average score as 4.636.

It is clearly visible from the table that the parameters "Composition of Basic Sciences, Engineering, Humanities and Management Courses is a right mix and appropriate in B.Tech – Chemical Engineering curriculum" and "No. of Laboratory sessions sufficient to improve the technical skills" obtained average scores 4.485 and 4.728 respectively and has been rated as Excellent.

The parameters "Courses placed in the B.Tech – Chemical Engineering curriculum serves the needs of both Advanced and Average learners"; "B.Tech – Chemical Engineering Curriculum providing opportunity towards self learning to realize the expectations." And "Sufficient courses available to improve technical competency and leadership skills among the students" obtained the scores of 4.61, 4.636 and 4.818 respectively and has been rated as Excellent which clearly reflects the benefit towards the student expectations.

Average scores of 4.757 and 4.515 were obtained by the parameters "Contact Hour Distribution among the various Course Components (LTP) is satisfiable"; "Electives have enabled the passion to learn new technologies in emerging areas" are rated as Excellent.

Times to time meetings were conducted at the department level to leverage new and advanced techniques to combat the learning difficulties of the students.

The feedback analysis reveals that laboratory sessions help to improve the student's technical skills and the courses placed in the curriculum supports both the advanced learners as well as slow learners.

*Jameesh.*  
Chairman, CDMC