

CRITERION- I-CURRICULAR ASPECTS

1.4 Feedback System

1.4.1: Structured feedback for design and review of syllabus – semester- wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers 4) Alumni

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Department of Mechanical Engineering

NOTICE

A meeting of the DQAC of Department of Mechanical Engineering is schedule to be held on **20.12.2016** at 10:00 AM in the HOD chamber to discuss following agenda item.

Agenda: Analysis of Feedback Report (Session 2017-18) for all programs offered by the department.

All members are requested to make it convenient to attend the meeting.

Frof. Mohammed Haris Siddiqui Registrar Integral University, Lucknow, India

Integral University, Lucknow



Department of Mechanical Engineering

Minutes of the Meeting of DQAC

Agenda: Analysis of Feedback (Session 2017-18) for all programs offered by the department.

Date: 20.12.2016

Venue: HOD chamber

Time: 10:00AM

SI	Name	Position	Signature
1	Prof. (Dr.) P.K. Bharti	Chairperson	84.1
2	Dr. Ather Hussain	Member	Moran.
3	Er. S. A. H. Jafri	Member	am 2
4	Dr. Shahnwaz Alam	Member	0
6	Dr. Mohd. Shadab Khan	Member	- the obs
6	Dr. Mohd. Anas	Member	Amon
7	Er. A. Ahed. Khan	Member	A
8	Er. Faiz Mohd.	Member	- aske
9	Er. Abhishek Dwivedi	Member	de
10	Er. Kamran Rasheed	Member	Ou
11	Er. Md. Reyaz Ur Rahim	Member	Lexis
12	Er. Mohd. Seraj	Member	11
13	Er. Y. A. Ansari	Member	-000
14	Er. Mahmood Alam	Member	M
15	Er. Mohd. Faizan Hasan	Member	
16	Er. Sumita Chaturvedi	Member	Qual
17	Er. Md. Faisəl Khan	Member	
18	Er. Meraj Ansari	Member	ment
19	Er. Shara Khursheed	Member	
)	Er. Niyaz Ahmad	Member	



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Meeting Agenda details:

- 1. Discussion on all stakeholders' feedback on curriculum revision.
- 2. Preparation of detailed Feedback Analysis Report for all programs offered.
- 3. Preparation of Action Plan against suggested responses.

Meeting Minutes:

After due discussions and deliberations following decisions were taken.

- 1. The collective feedback of all the stakeholders was analysed and a consolidated report of the recommendations was prepared. Feedback was taken against eight questions. The first seven questions have been rigorously designed to capture the qualitative characteristics of the curriculum and its enrichment. The last question is a subjective question which captures the suggestions of the stakeholders. The questions recorded stakeholder views against professional competencies, sequencing of the content, adequacy of syllabi coverage & credit allocation, adequateness of textbooks and reference materials, syllabus in terms of active engagement of students, depth of the syllabus with respect to industry/global scenarios, and suggestion by the stakeholder.
- 2. The stakeholders have recorded a positive feedback and have shown satisfaction regarding the proposed curriculum. The responses have been collated and the suggestions and necessary action plan for revisions/ additions in the syllabi are captured in the feedback analysis report.
- 3. The Feedback Analysis Report is enclosed and submitted for necessary action.

4. Meeting ended with thanks to chair

(DQAC Chairman)

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Internal Quality Assurance Cell Department of Mechanical Engineering Feedback Analysis Report

B.Tech. Mechanical Engineering

Feedback by Students: (Dept. of Mechanical Engineering)

The categorization of rating based on average score of different parameters is as follows:

S.	Question		Responses (in	Average			
No.		Excellent (4)	Very Good (3)	Moderate (2)	Poor (1)	Score out of 4	Ratings
1,	Professional Competencies: The syllabi/ courses are able to achieve the intended outcomes	70	15	10	5	3.5	Excellent
2,	Rate the sequencing of the contents in the syllabi/ courses	60	20	16	4	3.36	Excellent
3.	Rate the adequacy of coverage and credit allocation in syllabi/courses	55	25	13	7	3.28	Excellent
4.	Rate the adequacy of textbooks and reference materials mentioned in syllabi	63	- 18	17	2	3.42	Excellent
5.	Rate the syllabi content in terms of active engagement of the students	57	23	13	7	3.3	Excellent
6.	Rate the depth of the syllabus for the course in relation to the competencies expected by industry/global scenarios	59	16	16	9	3.25	Excellent
7,-	The syllabi/course will help in adding competitiveness among learners and helps in carrier progression	69	12	11	8	3.42	Excellent

*Excellent >3 *Very Good >2 *Moderate>1 * Poor<=1

Text Suggestions:

- B. Tech. third year core subjects may be revised.
- More elective subjects should be added
- Modern topics need to be added in the syllabi according to need of industry.
- More specific topic need to be included in the course content for upcoming development.

Analysis of Feedback:

The Student's responses to the proposed changes in the curriculum against different parameters were analysed. Based on their feedback the following points have been noticed.

- 1) 85% of the students rated the curriculum "Excellent"/ "Very Good" with respect to professional competencies, intended outcomes
- 2) 80% of the student rated "Excellent"/ "Very Good" with respect to sequencing of the contents,

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- 3) 80% of the students rated the curriculum "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi,
- 4) 81% of the students rated "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi
- 5) 80% of the students rated the syllabi content "Excellent"/ "Very Good" in terms of active engagement of the students
- 6) 75% of the students rated the depth of the syllabus "Excellent"/ "Very Good" for the course in relation to the competencies expected by industry/global scenarios
- 7) 81% of the students rated the curriculum "Excellent"/ "Very Good" with respect to competitiveness through active engagement among learners and will also helps in carrier progression.

Action Plan:

- As per the feedback and suggestion of the stack holders, DQAC informed the concerned subject teachers and requested them to incorporate the suggestions.
- Concerned subject teachers suggested for the revision of syllabus of Machine Design, Dynamics of
 machines, Manufacturing Science II, Heat and Mass Transfer, Refrigeration and air conditioning, and
 Internal Combustion engine.
- In DQAC meeting concerned teachers suggested to introduce few value added courses for B.Tech students.
- In DQAC meeting concerned teachers suggested to introduce in house training course for B.Tech students.
- Syllabus of the aforementioned subjects was decided to be presented in the fourth coming BOS meeting for further discussion and approval.

Feedback by Teachers: (Dept. of Mechanical Engineering)

The categorization of rating based on average score of different parameters is as follows:

	Question	R	esponses (in t		Average		
S. No.		Excellent (4)	Very Good (3)	Moderate (2)	Poor (1)	Score out of 4	Ratings
1.	Professional Competencies : The syllabi/ courses are able to achieve the intended outcomes	60	20	10	10	3.3	Excellent
2.	Rate the sequencing of the contents in the syllabi/ courses	54	26	15	5	3.29	Excellent
3.	Rate the adequacy of coverage and credit allocation in syllabi/courses	48	32	14	6	3.22	Excellent
4.	Rate the adequacy of textbooks and reference materials mentioned in syllabi	62	28	13	7	3.65	Excellent
5.	Rate the syllabi content in terms of active engagement of the students	55	18	23	4	3.24	Excellent
6.	Rate the depth of the syllabus for the course in relation to the competencies expected by industry/global scenarios	42	22	15	9	2.73	Very Good
7.	The syllabi/course will help in adding competitiveness among learners and helps in carrier progression	50	30	10	10	3.2	Excellent

*Excellent >3 *Very Good >2 *Moderate>1 * Poor<=1





- Some elective subjects in the area of design can be added
- In the syllabus of "Dynamics of Machine" few topics like static force analysis, balancing of machines and dynamometers should be added.
- Syllabus of "Heat and mass transfer" may be moderated according to UG level and according to syllabus of GATE and other competitive exams.

Analysis of Feedback!

- 1) 80% of the students rated the curriculum "Excellent"/ "Very Good" with respect to professional competencies, intended outcomes
- 2) 80% of the student rated "Excellent"/ "Very Good" with respect to sequencing of the contents,
- 3) 80% of the students rated the curriculum "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi,
- 4) 90% of the students rated "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi
- 5) 73% of the students rated the syllabi content "Excellent"/ "Very Good" in terms of active engagement of the students
- 6) 64% of the students rated the depth of the syllabus "Excellent"/ "Very Good" for the course in relation to the competencies expected by industry/global scenarios
- 7) 80% of the students rated the curriculum "Excellent"/ "Very Good" with respect to competitiveness through active engagement among learners and will also help in carrier progression.

Action Plan:

As per the feedback and suggestion of the stack holders, DQAC inform the concerned subject teachers and requested them to incorporate the suggestions.

- Concerned subject teachers suggested for the revision of syllabus of "Dynamics of Machine".
- In DQAC meeting concerned teachers suggested to introduce one new elective subject "Engineering Product Design".
- Syllabus of the aforementioned subjects was decided to be presented in the fourth coming BOS meeting for further discussion and approval.

Feedback by Alumni: (Dept. of Mechanical Engineering)

The categorization of rating based on average score of different parameters is as follows:

	Question	R	esponses (in	Average			
S. No.		Excellent (4)	Very Good (3)	Moderate (2)	Poor (1)	Score out of 4	Ratings
1,	Professional Competencies: The syllabi/ courses are able to achieve the intended outcomes	63	20	14	3	3.4	Excellent
2.	Rate the sequencing of the contents in the syllabi/ courses	48	29	19	4	3.2	Excellent
3.	Rate the adequacy of coverage and credit allocation in syllabi/courses	48	36	14	2	3.3	Excellent
4.	Rate the adequacy of textbooks and reference materials mentioned in syllabi	56	28	14	2	3.4	Excellent

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5,	Rate the syllabi content in terms of active engagement of the students	44	40	13	3	3,3	Excellent
6,	Rate the depth of the syllabus for the course in relation to the competencies expected by industry/global scenarios	39	40	15	6	3.1	Excellent
7.	The syllabi/course will help in adding competitiveness among learners and helps in carrier progression	65	21	9 .	5	3.5	Excellent

^{*}Excellent >3 *Very Good >2 *Moderate>1 * Poor<=1

- Some new elective subjects may be introduced.
- Various modification has been done in conventional IC engines, and alternative fuels is the focused area of modern IC engine, so syllabus of IC engine should be modified to added these topics.

Analysis of Feedback:

The Employer' responses to different parameters were recorded and analysed. Based on their feedback the following points were captured.

- 1) 83% of the students rated the curriculum "Excellent"/ "Very Good" with respect to professional competencies, intended outcomes
- 2) 77% of the student rated "Excellent"/ "Very Good" with respect to sequencing of the contents,
- 3) 84% of the students rated the curriculum "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi,
- 4) 84% of the students rated "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi
- 5) 84% of the students rated the syllabi content "Excellent"/ "Very Good" in terms of active engagement of the students
- 6) 79% of the students rated the depth of the syllabus "Excellent"/ "Very Good" for the course in relation to the competencies expected by industry/global scenarios
- 7) 86% of the students rated the curriculum "Excellent"/ "Very Good" with respect to competitiveness through active engagement among learners and will also help in carrier progression.

Action Plan:

- As per the feedback and suggestion of the stack holders, DQAC informed the concerned subject teachers and requested them to incorporate the suggestions.
- In DQAC meeting concerned teachers suggested to introduce one new elective subject "Applied Elasticity" in B.Tech 3rd year.
- Concerned subject teachers suggested for the revision of syllabus of "IC engine".
- Syllabus of the aforementioned subjects was decided to be presented in the fourth coming BOS meeting for further discussion and approval.



Internal Quality Assurance Cell Department of Mechanical Engineering Feedback Analysis Report M. Tech. (Production & Industrial Engineering)

Feedback by Students: (Dept. of Mechanical Engineering)

The categorization of rating based on average score of different parameters is as follows:

	Question	Res	ponses (in te		Average		
S. No.		Excellent (4)	Very Good (3)	Moderate (2)	Poor (1)	Score out of 4	Ratings
1.	Professional Competencies: The syllabi/ courses are able to achieve the intended outcomes	75	18	7	0	3.68	Excellent
2.	Rate the sequencing of the contents in the syllabi/ courses	70	16	6	8	3.48	Excellent
3.	Rate the adequacy of coverage and credit allocation in syllabi/courses	62	23	10	5	3.42	Excellent
4.	Rate the adequacy of textbooks and reference materials mentioned in syllabi	80	17	1	2	3.75	Excellent
5.	Rate the syllabi content in terms of active engagement of the students	65	22	6	7	3.45	Excellent
6.	Rate the depth of the syllabus for the course in relation to the competencies expected by industry/global scenarios	68	24	5	3	3.57	Excellent
7,	The syllabi/course will help in adding competitiveness among learners and helps in carrier progression	79	14	0	7	3,65	Excellent

^{*}Excellent >3 *Very Good >2 *Moderate>1 * Poor<=1

Text Suggestions:

- 1. The syllabus of "Advance Manufacturing Process" may be revised as it has few topics already covered at UG level
- 2. Some new non-conventional manufacturing processes may be added in the syllabus of "Advance Manufacturing Process" as per latest requirement and to fulfil the industrial needs.

Analysis of Feedback:

The Student's responses to the proposed changes in the curriculum against different parameters were analysed. Based on their feedback the following points have been noticed.

8) 93% of the students rated the curriculum "Excellent"/ "Very Good" with respect to professional competencies, intended outcomes

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- 9) 86% of the student rated "Excellent"/ "Very Good" with respect to sequencing of the contents,
- 10) 85% of the students rated the curriculum "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi,
- 11) 97% of the students rated "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi
- 12) 87% of the students rated the syllabi content "Excellent"/ "Very Good" in terms of active engagement of the students
- 13) 92% of the students rated the depth of the syllabus "Excellent"/ "Very Good" for the course in relation to the competencies expected by industry/global scenarios
- 14) 93% of the students rated the curriculum "Excellent"/ "Very Good" with respect to competitiveness through active engagement among learners and will also help in carrier progression.

Action Plan:

- As per the feedback and suggestion of the stack holders, DQAC informed the concerned subject teachers and requested them to incorporate the suggestions.
- Concerned subject teachers suggested for the revision of syllabus of "Advance Manufacturing Process".
- Syllabus of the aforementioned subjects was decided to be presented in the fourth coming BOS meeting for further discussion and approval.

Feedback by Teachers: (Dept. of Mechanical Engineering)

The categorization of rating based on average score of different parameters is as follows:

s.	Question	Re	esponses (in		Average		
No.		Excellent (4)	Very Good (3)	Moderate (2)	Poor (1)	Score out of 4	Ratings
1.	Professional Competencies : The syllabi/ courses are able to achieve the intended outcomes	82	11	5	2	3.6	Excellent
2.	Rate the sequencing of the contents in the syllabi/ courses	60	11	11	18	2.7	Very Good
3,	Rate the adequacy of coverage and credit allocation in syllabi/courses	33	56	0	11	2.6	Very Good
4.	Rate the adequacy of textbooks and reference materials mentioned in syllabi	78	11	11	0	3.7	Excellent
5.	Rate the syllabi content in terms of active engagement of the students	60	20	12	8	3.5	Excellent
6.	Rate the depth of the syllabus for the course in relation to the competencies expected by industry/global scenarios	67	22	0	11	3.6	Excellent
7.	The syllabi/course will help in adding competitiveness among learners and helps in carrier progression	55	30	8	7	3.5	Excellent

*Excellent >3 *Very Good >2 *Moderate>1 * Poor<=1

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Few more contents of non-conventional manufacturing processes should be added in the syllabus of "Advance Manufacturing Process" as various non-conventional manufacturing processes are being used nowadays in industries.

Analysis of Feedback:

Based on the feedback of teachers the following points have been noticed.

- 1) 93% of the students rated the curriculum "Excellent"/ "Very Good" with respect to professional competencies, intended outcomes
- 2) 71% of the student rated "Excellent"/ "Very Good" with respect to sequencing of the contents,
- 3) 89% of the students rated the curriculum "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi,
- 4) 89% of the students rated "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi
- 5) 80% of the students rated the syllabi content "Excellent"/ "Very Good" in terms of active engagement of the students
- 6) 89% of the students rated the depth of the syllabus "Excellent"/ "Very Good" for the course in relation to the competencies expected by industry/global scenarios
- 7) 85% of the students rated the curriculum "Excellent"/ "Very Good" with respect to competitiveness through active engagement among learners and will also help in carrier progression.

Action Plan:

- As per the feedback and suggestion of the stack holders, DQAC informed the concerned subject teachers and requested them to incorporate the suggestions.
- Concerned subject teachers suggested for the revision of syllabus of "Advance Manufacturing Process.
- Syllabus of the aforementioned subjects was decided to be presented in the fourth coming BOS meeting for further discussion and approval.

Feedback by Alumni: (Dept. of Mechanical Engineering)

The categorization of rating based on average score of different parameters is as follows:

		Re	sponses (in	Average			
S. No.	Question	Excellent (4)	Very Good (3)	Moderate (2)	Poor (1)	Score out of 4	Ratings
1.	Professional Competencies : The syllabi/ courses are able to achieve the intended outcomes	72	10	8	10	3,6	Excellent
2.	Rate the sequencing of the contents in the syllabi/ courses	58	15	12	15	3.2	Excellent
3.	Rate the adequacy of coverage and credit allocation in syllabi/courses	56	26	14	4	3.3	Excellent





4.	Rate the adequacy of textbooks and reference materials mentioned in syllabi	68	13	12	7	3.4	Excellent
5.	Rate the syllabi content in terms of active engagement of the students	70	20	8	2	3.6	Excellent
6.	Rate the depth of the syllabus for the course in relation to the competencies expected by industry/global scenarios	64	18	12	6	3.4	Excellent
7.	The syllabi/course will help in adding competitiveness among learners and helps in carrier progression	80	10	7	3	3.7	Excellent

^{*}Excellent >3 *Very Good >2 *Moderate>1 * Poor<=1

- Few contents of "Maintenance Management" is already is being taught in the syllabus of at B.Tech level so similar contents can be removed.
- To enhance the managerial skill of the students subjects related to management should be enriched.

Analysis of Feedback

Based on the feedback of alumni the following points have been noticed.

- 1) 82% of the students rated the curriculum "Excellent"/ "Very Good" with respect to professional competencies, intended outcomes
- 2) 73% of the student rated "Excellent"/ "Very Good" with respect to sequencing of the contents,
- 3) 82% of the students rated the curriculum "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi,
- 4) 81% of the students rated "Excellent"/ "Very Good" with respect to adequacy of textbooks and reference materials mentioned in syllabi
- 5) 90% of the students rated the syllabi content "Excellent"/ "Very Good" in terms of active engagement of the students
- 6) 82% of the students rated the depth of the syllabus "Excellent"/ "Very Good" for the course in relation to the competencies expected by industry/global scenarios
- 7) 90% of the students rated the curriculum "Excellent"/ "Very Good" with respect to competitiveness through active engagement among learners and will also help in carrier progression.

Action Plan:

- As per the feedback and suggestion of the stack holders, DQAC informed the concerned subject teachers and requested them to incorporate the suggestions.
- Concerned subject teachers suggested for the revision of syllabus of "Maintenance Management".
- Syllabus of the aforementioned subjects was decided to be presented in the fourth coming BOS meeting for further discussion and approval.

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Internal Quality Assurance Cell

Department of Mechanical Engineering Action Taken Report

B.Tech. and M.Tech Mechanical Engineering

A meeting of the DQAC members was held on **20.12.2016**. In this meeting the feedback analysis report submitted on **09-11-2016** was discussed. After intense deliberations, the DQAC made the recommendations. As per the Action Taken Report submitted to the BOS committee for further decision on revision and or addition of proposed syllabi. The following proposals were made in the meeting:

- The suggestions from students' request more focus on experimental learning. This can be improved by introducing more experiments and learning components. Most practical experiments will be included in the syllabi for improving competencies.
- The practicality of the syllabi should be enhanced for active engagement so CA component should be enhanced in theory subjects.
- The committee suggested the revision and modification in the following syllabi of B.Tech.
 - Machine Design
 - Dynamics of machines
 - Manufacturing Science II
 - Heat and Mass Transfer
 - Refrigeration and air conditioning
 - Internal Combustion engine
 - Dynamics of Machine
- The committee suggested to introduce the following new elective subjects in the B.Tech curriculum.
 - Applied Elasticity
 - Engineering Product Design
- The committee suggested to introduce the following new valued added courses for the B.Tech students.
 - Additive manufacturing (3d printer and design): Basics
 - Additive manufacturing (3d printer and design):Aadvanced
- The committee suggested the revision and modification in the following syllabi of M.Tech.
 - Advance Manufacturing Process
 - Maintenance Management

Name Signature (Head of the Department)

Department of Mechanical Engg. Integral University, Lucknow

Frof. Mohammed Haris Siddiqui Registrar

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