Applied science Dept. 2018-19

Academic Audit

Date :- 28/07/2018.

Place :- Academic Complex Conference Room.

Academic ~~Com~~ Audit conducted for following subjects :

1) F.Y.B.Tech - Applied Chemistry
2) S.Y.B.Tech - Advance Engineering Materials.
3) B.Tech ILOE - polymer Technology, Lubrication Technology.

The course content, conduct & evaluation is found to be satisfactory. Suggesstions like introduction of tutorials, new experiments, guest lectures, more assignments will make the course better & more interesting.

Meeting ~~was~~ attended by :

1. Prof. Pradeepkumar - IITB
2. Dr. Venket Iyer - Dow chemicals
3. Dr. Rahul Patil - Halliburton
4. Mrs. Nandini Iyer -
5. Dr. M.Y. Khaladkar -
6. Dr. K.S. Suranje
7. Dr. Deepika Agawal
8. Dr. Ganesh Agawane -

Academic Audit at Applied Science Department for subjects related to Chemistry

Date: 28/07/2018 Time: 11 a.m. onwards

Place: Conference-room ,academic Complex, 4th Floor.

Members:

1) Prof. Pradeepkumar P I , Professor, Department of Chemistry, IITBombay, Powai - Member Higher learning Institute, Subject Expert

2)Dr. Venkat Iyer , Dow Chemicals India Pvt. Ltd. Mumbai, Industry Member

3) Dr. Rahul Patil, Halliburton India Ltd., Pune, Industry Member,

4) Mrs. Nandini Iyer, I/C Head, Applied Science Dept.

5) Dr. M Y Khaladkar, Associate Prof. of Chemistry

6) Dr. Kavita Suranje, Assistant Prof., Chemistry

7) Dr. Deepika Agarwal, Assistant Prof., Chemistry

8) Dr. Ganesh Agawane, Assistant Prof., Chemistry

Academic Audit was conducted for following subjects:

- F Y B Tech: Chemistry
- S Y B Tech ILOE-Advance Engineering Materials
- B Tech ILOE: Polymer Technology, Lubrication Technology

General Comments:

All the course objectives are well defined and are in alignment with POs of various programs offered by different departments and are in tune with Institute Goals, Vision and Mission.

Following issues were discussed at length:

- As new academic iteration will begin for F Y B Tech next year, whether we want to completely change the syllabus or partly change it ?
- The present syllabus is not very challenging for faculty and not very interesting for students. How can we change the scenario?

Suggestions:

a) To improve student participation and self learning few topics should be left to students for group discussion, presentation, assignment - Water technology and Corrosion

b) Practical based on Water analysis to be reduced and clubbed as 1/2 experiments or changed to water analysis using portable instrument or water purification using modern techniques

c) For Topics like Nonmaterial and Polymer some demonstrations or hands on experiments to be included , use of Khan academy , virtual lab for polymer characterization, Coursera to be encouraged

d) Some academic weightage to be assigned for class participation from internal T1 and T2 component to ensure two way interaction and it will also stimulate student interest in self learning

e) Challenging assignment like 'Innovations that have revolutionized the world' to be given as part of T1.

f) Every month a guest lecture to be conducted by industry experts based on topics related to syllabus unit which is being conducted in different classes. Few indicative topics and suggested speakers are given below:

- Innovations in Chemistry and their impact on Engineering and Technology: Dr Rahul Patil - During Student Induction program
- Safety and GLP in Industry- Dr Sunil Pande - Dr Rahul Patil will co-ordinate - August end
- Membrane base water technology Eco labs- Dr Soumil Mehta- (Dr. Venkat Iyer will co-ordinate - September)
- Corrosion- Mechanical /Automobile Industry expert- to be searched (September)
- Polymers, smart jells , sensors - Dr Anjali Athawale(October)
- Nano materials and nanotechnology- (November)

g) Tutorial to be introduced for assignments, problem solving in a smaller , wearing lab coat, safety goggles and shoes to be made compulsory

h) Whether pure or applied Chemistry to be taught to F Y B tech should be decided and next syllabus should be finalized by December 2018.

i) Every year 1/2 new experiments to be introduced and old ones to be deleted.

j) Inexpensive analytical instruments like IR spectrophotometer, Viscosity /rheology, polymer extruder, Spectrophotometer, Ph meter to be purchased (at least one per year from equipment / R&D grant. Industries to be contacted for old working instruments of as part of their CSR activities.

Polymer Technology course:

a) Emphasis on polymer characterization techniques should be given(Chapter3 of syllabus)

b) As these are mature students, they should read and review one research paper and present it as part of T1/T2 assignment

c) Commercially important polymers, leading manufacturers and polymerization processes used in industry should be discussed

d) Impact of polymers on environment should be taken as group discussion e.g whether complete ban on plastics is advisable what is the carbon and water footprint of other alternatives (like paper) really acceptable.

e) Check regulations for polymer and silicon base polymer for health and environment safety/hazard .

These minutes are generated for internal circulation and submission to Academic quality monitoring committee.

Commented [PP1]: Be made compulsory in the laboratory

Commented [PP2]: Introduced preferably from the Journal of Chemical education

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Commented [PP4]: pH

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Commented [PP6]: senior