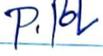
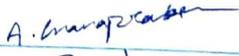


BOARD OF STUDIES MEETINGDATE: 02.02.2024TIME: 10:00 am.DAY: FRIDAYVENUE: M-229

Minutes of the meeting [Board of Studies - BOS] in Chemical Engineering held on 02<sup>nd</sup> February 2024 in the Department of Chemical Engineering to review and approve the Curriculum and Syllabi for B.Tech. [Chemical Engineering] - 2023 Regulation

Members PresentSignature

- |  |   |
|--|---|
| 1. Prof. Dr. M. Thirumarimurugan - chairman        |   |
| 2. Prof. Dr. M. Arulmozhi - University Nominee     |  |
| 3. Prof. Dr. A. Arunagiri - outside Subject Expert |  |
| 4. Prof. Dr. V. Sivakumar - outside Subject Expert |  |
| 5. Mr. C.S. Sampath Kumar - Industry Expert        | - Preoccupied   |
| 6. Mr. R. Sathish Kumar - Industry Expert          | - Pre occupied  |
| 7. Prof. Dr. D. Prabhakaran - Member               |  |
| 8. Dr. V.M. Sivakumar - Member                     |  |
| 9. Dr. T. Sivakumar - Member                       |  |
| 10. Dr. R. Azarudeen - Member                      |  |
| 11. Dr. A. Vivek Joe Bharath - Member              |  |
| 12. Mr. P. Babu - Member                           |  |
| 13. Dr. A. Ganaprasadam - Member                   |  |
| 14. Dr. P. Sivakumar - Member                      |  |
| 15. Ms. Nisha Subash - CO-OPTED Member             |  |
| 16. Dr. B. Uma maheswari - Member                  |  |
| 17. Dr. K. Ganesamoorthy - Member                  |  |
| 18. Dr. S. Vasantha - Member                       |  |
| 19. Ms. J. Asha - Member                           |  |
| 20. Mr. S.R. Prannesh Ram - Student Member         |  |
| 21. Mr. B. Mathumitha -                            |  |

**DEPARTMENT OF CHEMICAL ENGINEERING**  
**BOARD OF STUDIES**

**MINUTES OF THE MEETING**

**DATE: 02.02.2024**

**VENUE: DEPARTMENT MEETING HALL  
M-223**

Meeting was commenced by Chairman, Board of Studies with the brief introduction of University Nominee, Academic experts, Industry experts and internal members. At the outset, he briefed two main agenda of meeting

1. To scrutinize the existing Programme Specific Outcomes (PSO1 & PSO2) of B.Tech. Chemical Engineering.
2. To finalize B.Tech. Chemical Engineering Syllabus from Semester-3 to Semester-8.

In continuation to the Welcome address, B.Tech. Chemical Engineering Curriculum and Syllabi were presented by BoS coordinator. While presenting the curriculum, suggestions and recommendations given by the expert members are listed below:

- Dr. V. Sivakumar, Subject Expert has suggested to modify the PSO2.

**PSO2:** To implement the inter-perceptual skills of individuals in chemical and allied engineering professions.

- Dr A.Arunagiri and Dr.V.Sivakumar have suggested to include NPTEL courses and Lectures from outside experts as Value added Course I and II in the Curriculum.
- It was suggested to reduce 6 major verticals to 3 major verticals for the award of B.Tech. Hons. (specialization) and B.Tech.Hons.
- It was also suggested to modify VerticalV-Computational Chemical Engineering as VerticalV-Computer Applications in Chemical Engineering.
- A discussion was held among the internal and external expert members to remain 5 COs for all the subjects. Dr. A.Vivek Joe Bharath mentioned the following Institute level guidelines prescribed by Curriculum Design and Development Cell.

➤ At present, the course outcomes given in the syllabus are tentative. However, the six course outcomes will be framed by the respective teachers in a discussion with department coordinator of Curriculum Design and Development. A training will be given to the coordinator for framing the course outcomes by Curriculum Design and Development Cell.

- Dr.V.Sivakumar suggested to inter-exchange the Unit 3 and Unit4 in the Subject "Fluid Mechanics"
- To improve the conceptual understanding in the Fluid Mechanics, the following book was suggested as an additional Text Book:  
Christie John Geankoplis, A.Allen Hersel and Daniel H.Lepek, ' Transport Processes and Separation Process Principles' Prentice Hall India. Inc, Fifth Edition, 2017.

- Dr.V. Sivakumar suggested to remove pre-requisite from Process Instrumentation Syllabus and also suggested to provide titles for each unit instead of providing Unit-I, II, III, IV and V.
- It was suggested to remove pre-requisite for all the subjects
- A textbook entitled “S.C.Bhatia, Chemical Process Industries – Volume-I, CBS publishers, second edition, 2004” shall be included as one among the text books for the subject “Chemical Process Industries”.
- Dr.A.Arunagiri suggested to increase the total number of experiments in Physical and Organic Chemistry Laboratory.
- It was suggested to maintain uniform number of text books (maximum 3 no’s) for all the theory subjects.
- Dr.V. Sivakumar commented to verify the LTPC for the subject “Mechanical Operations”.
- He has also suggested to inter-exchange Unit-5 (Radiation and Evaporation) and Unit-3 (Heat Exchangers) in the subject “Heat Transfer” to maintain the continuity in conceptual delivery.
- To improve the conceptual understanding in “Heat Transfer” subject, the following book was suggested as an additional Text Book:  
Christie John Geankoplis, A.Allen Hersel and Daniel H.Lepek, ‘ Transport Processes and Separation Process Principles’ Prentice Hall India. Inc, Fifth Edition, 2017.
- Dr. V.Sivakumar suggested to arrange the syllabus of Mass Transfer-I and Mass Transfer-II as follows:

Mass Transfer-I	Mass Transfer-II
Unit-I: Diffusion	Unit-I: Absorption
Unit-II: Adsorption	Unit-II: Distillation
Unit-III: Humidification	Unit-III: Distillation
Unit-IV: Drying	Unit-IV: Extraction
Unit-V: Crystallization	Unit-V: Leaching

- A textbook entitled “Mass Transfer” by K.V.Narayan shall be included in the list of textbooks for both Mass Transfer-I and Mass Transfer-II.
- It was suggested to inter-exchange Unit-3 & Unit-4 in “Instrumental Methods of Analysis” subject.
- The title of Laboratory course ‘19CHL48 Technical Analysis Laboratory’ can be changed as ‘Technical and Instrumental Analysis’ laboratory.
- Concepts on Numerical Methods in ODE and PDE can be elaborated in the subject ‘Numerical Methods in Chemical Engineering’
- A textbook entitled “Chemical Reaction Engineering’ by K.H.Gavane shall be included for the subjects “Chemical Reaction Engineering-I & II”.
- Internship should be pursued only from the Industries or Institute of National Eminence
- A textbook entitled “Chemical Process Safety” by Lee shall be included in the list of textbooks provided for the subject “Chemical Process Safety”

- Dr.A.Arunagiri suggested to include the following text book for Applied mathematics in Chemical Engineering  
“Harold S.Mickley, ‘Applied Mathematics in Chemical Engineering’.
- A textbook entitled “Transport Phenomena” by GS Ladhaashall be included in the list of textbooks for the subject ‘Transport Phenomena.
- List of experiments given for CRE Lab and Design Lab may be re-ordered.
- A common instructions for both the design and experimental project should be given in the syllabus of “Mini Project” and “Project Work and Viva-Voce”
- A textbook entitled “Chemical Process Economics” by R.Siva Subramanian may be included in the list of textbooks for the subject “Process Economics”.

Students Feedback:

Mr. Pranneshram, IV B.Tech. has suggested to include “Process Instrumentation” as a core subject rather than elective subject.

Ms. Mathumitha, IV B.Tech. conveyed that she was completely satisfied with the existing curriculum and syllabi.

#### **Overall Comments & Vote of Thanks**

- Dr.M.Arulmozhi commented that overall curriculum and syllabi looks good and subjects are oriented with contemporary developments in technology.
- Dr.A.Arunagiri commented that entire chemical syllabus is very good.
- Dr. V. Sivakumar commented that over all syllabus is good and needs improvement in few aspects.

Finally, Dr.A.Vivek Joe Bharath thanked all the members of Board of Studies for their presence and valuable suggestions. Finally, Chairman, BoS thanked everyone and invited all the members to join lunch arranged by the Institute.

  
**Chairman, Board of Studies**  
**Department of Chemical Engineering**

Dr. M. THIRUMARIMURUGAN, M.Tech., Ph.D.  
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Coimbatore - 641 014, INDIA.