

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA
माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत

A GOVT. AIDED UGC AUTONOMOUS INSTITUTE, AFFILIATED TO R.G.P.V. BHOPAL (M.P.), INDIA

NAAC ACCREDITED WITH A++ GRADE

Department of Chemical Engineering

Minutes of BOS Meeting

Date: 01/12/2023

The BOS Meeting was held on 1st Dec 2023 through online mode on Google Meet from 12 Noon Onwards. During the meeting, following were present

External Members:-

1. Dr. Pankaj Tiwari, Associate Professor, Department of Chemical Engg., IIT Guwahati
(Expert nominated by the Academic Council)
2. Dr. Manish Vashishtha, Associate Professor, Department of Chemical Engg., MNIT Jaipur
(Expert nominated by the Academic Council)
3. Mr. Rakesh Agrawal, Director, Myriadly Engineering and Business Solutions Pvt Ltd., Malanpur, Gwalior (Expert from Industry)

Internal Members:-

1. Prof. Swati Gupta, Assistant Professor, Dept. of Chemical Engg., MITS
2. Prof. Anish P. Jacob, Assistant Professor & Co-ordinator, Dept. of Chemical Engg., MITS
3. Dr. Shourabh Singh Raghuwanshi, Assistant Professor, Dept. of Chemical Engg., MITS
4. Dr. R.K. Dubey, Assistant Professor, Dept. of Chemical Engg., MITS
5. Prof. Shivangi Sharma, Assistant Professor, Dept. of Chemical Engg., MITS

The following points were discussed and resolved & item wise discussion as follows:-

Item CM 1	To confirm the minutes of the previous BoS meeting held in the month of May-June 2023. The minutes of the previous Board of studies (BoS) meeting held on 2nd June 2023 (Through Google Meet) were confirmed.
Item CM 2	The examination committees constituted vide Dean Academics Notice no 1332 dated 20/4/2021 need to be reconstituted this year. The examination committee of the department has been reconstituted and approval obtained for the same.
Item CM 3	To propose the scheme structure of VIII Semester with the provision of ONE DE & ONE OC course to be offered in online mode with credit transfer for the batch admitted in academic year 2020-21. (The total credits from I-VIII semester should not be less than 160 for this batch). Scheme structure of B.Tech. VIII Semester with the provision of ONE DE & ONE OC course to be offered in online mode with credit transfer for the batch admitted in academic year 2020-21 has been proposed. https://drive.google.com/file/d/1Xi8dsaUUjyRi5lnQNuiTozviayh3mt13/view?usp=sharing
Item CM 4	To propose the list of courses which the students can opt from SWAYAM/NPTEL/ other MOOC Platforms/ Institution (MITS) MOOC, to be offered in online mode under Departmental Elective (DE) category courses (DE-5) and open category (OC3) for credit transfer in the VIII Semester under the flexible curriculum (Batch admitted in academic year 2020-21) The list of courses which the students can opt from SWAYAM/NPTEL/ other MOOC Platforms/ Institution (MITS) MOOC, to be offered in online mode under Departmental Elective (DE) category courses (DE-5) and open category (OC3) for credit transfer in the VIII Semester under the flexible curriculum (Batch admitted in academic year 2020-21) were discussed and finalized as per the following detail:-

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Elective- V, VIII Semester through SWAYAM /NPTEL/MOOC (Online Mode)

S.No.	Course Name	Course Code	Duration
1.	Chemical Reaction Engg.-II	170861	12 Weeks
2.	Biomass Conversion and Biorefinery	170862	12 Weeks
3.	Chemical Process Utilities	170863	12 Weeks

OC- 3, VIII Semester through SWAYAM /NPTEL/MOOC (Online Mode)

S.No.	Course Name	Duration
1.	Environmental Quality Monitoring & Analysis	12 Weeks
2.	Electrochemical Technology in Pollution Control	08 Weeks
3.	Multiphase Microfluidics	08 Weeks

To propose the list of “Additional Courses” which can be opted for getting an

(i) Honours (for students of the host department)

(ii) Minor Specialization (for students of other departments)

[These will be offered through SWAYAM/NPTEL/MOOC based Platforms for the B.Tech. VIII semester students (for the batch admitted in 2020-21)] and for B.Tech. VI semester (for the batch admitted in 2021-22)]

The list of “Additional Courses” which can be opted for getting an

(i) **Honours (for students of the host department)**

(ii) **Minor Specialization (for students of other departments)**

for the B.Tech. VIII semester students (for the batch admitted in 2020-21)] and for B.Tech. VI semester (for the batch admitted in 2021-22)] were proposed. The courses available on SWAYAM/NPTEL/MOOC based Platforms for the VI semester and for VIII Semester for Honours & Minor specialization were discussed & recommended are as follows:

S.No.	Purpose	Name of Course	Duration of the course in weeks
1	For Honours(VIII Semester)	Computer Aided Applied Single Objective Optimization	12 Weeks
		Polymer Reaction Engineering	12 Weeks
		Biological Process Design for Wastewater Treatment	8 Weeks
2.		Inorganic Chemical Technology	12 Weeks

**Item
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3.	For Minor Specialization(Others Department) (VIII Semester)	Chemical Engineering Thermodynamics	12 Weeks
		Momentum Transfer in Fluids	12 Weeks
	For Minor Specialization (Others Department) (VI Semester)	Chemical Process Technology	12 Weeks
		Membrane Technology	12 Weeks
		Basic Principles and Calculations in Chemical Engineering	12 Weeks

The details of Courses offered for Honours (VI Semester) track wise for 2021 admitted students:

Tracks --->	<u>Energy Engineering</u>	<u>Separation Processes</u>	<u>Unit Operations</u>	<u>Polymer Technology</u>	<u>Environmental Engineering</u>
S. No.	Courses	Courses	Courses	Courses	Courses
1	Renewable Energy Engineering: Solar, Wind And Biomass Energy Systems(12 weeks)	Biological process design for wastewater treatment (8 Weeks)	Chemical Engineering Fluid Dynamics and Heat Transfer(12 weeks)	Polymer Reaction Engineering (12weeks)	Industrial Wastewater Treatment (12 weeks)
2	Waste to Energy Conversion (8 Weeks)	Physico-chemical processes for wastewater treatment (12 weeks)	Thermodynamics of Fluid Phase Equilibria (8 Weeks)	Characterization of Polymers, Elastomers and Composites(12 weeks)	Environmental Quality Monitoring & Analysis(12 weeks)

Item
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To review and finalize the **scheme structure of B.Tech VI Semester under** the flexible curriculum (**Batch admitted in 2021-22**)

The **scheme structure of B.Tech VI Semester under** the flexible curriculum (**Batch admitted in 2021-22**) has been prepared.

<https://drive.google.com/file/d/1jPHgR1kYB91GTqAEhm2xEjWkV57-obvf/view?usp=sharing>

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Item CM 7	To review & finalize the syllabi for all Departmental Core Courses (DC) and Mandatory Course (MC) of B. Tech VI Semester (for batch admitted in 2021-22) under the flexible curriculum along with their COs. The syllabi for all Departmental Core Courses (DC) and Mandatory Course (MC) of B. Tech VI Semester (for batch admitted in 2021-22) under the flexible curriculum along with their COs have been reviewed and finalized. https://drive.google.com/file/d/1PQQJPX2d-RSTQhLHSduFSjIkOmMoZW7c/view?usp=sharing																			
Item CM 8	<div>To propose the list of courses from SWAYAM/NPTEL/MOOC Platforms to be offered (for batches admitted in 2021-22) in online mode under Departmental Elective (DE-1) Course with credit transfer, in the VI Semester. The list of courses from SWAYAM/NPTEL/MOOC Platforms to be offered (for batches admitted in 2021-22) in online mode under Departmental Elective (DE-1) Course with credit transfer, in the VI Semester has been proposed and is as follows:</div> <table><tr><th>S.No.</th><th>Course Name</th><th>Course Code</th><th>Duration</th></tr><tr><td>1</td><td>Multiphase Flows</td><td>170661</td><td>8 weeks</td></tr><tr><td>2</td><td>Membrane Technology</td><td>170662</td><td>12 weeks</td></tr><tr><td>3</td><td>Physical and Electrochemical Characterizations in Chemical Engineering</td><td>170663</td><td>8 weeks</td></tr></table>				S.No.	Course Name	Course Code	Duration	1	Multiphase Flows	170661	8 weeks	2	Membrane Technology	170662	12 weeks	3	Physical and Electrochemical Characterizations in Chemical Engineering	170663	8 weeks
S.No.	Course Name	Course Code	Duration																	
1	Multiphase Flows	170661	8 weeks																	
2	Membrane Technology	170662	12 weeks																	
3	Physical and Electrochemical Characterizations in Chemical Engineering	170663	8 weeks																	
Item CM 9	<div>To review and finalize the courses & syllabi to be offered (for batch admitted in 2021-22) under the Open Category (OC) Courses (in traditional mode) for VI semester students of other departments along with their COs. The syllabus of course to be offered (for batch admitted in 2021-22) under the Open Category (OC) Courses (in traditional mode) for B.Tech. VI semester students of other departments along with their COs have been prepared and finalized.</div> <table><tr><td colspan="4">OC Course</td></tr><tr><td>1.</td><td colspan="3">Fuels & Combustion 910115</td></tr></table> https://drive.google.com/file/d/1bNl6U8SRKQcD6VxfnZOqkGJ9q8W1eROn/view?usp=sharing				OC Course				1.	Fuels & Combustion 910115										
OC Course																				
1.	Fuels & Combustion 910115																			
Item CM 10	<div>To review and finalize the Experiment list/ Lab manual for all the Laboratory Courses to be offered in B.Tech.VI semester (for batch admitted in 2021-22).</div> <div>The Experiment list/ Lab manual for all the Laboratory Courses to be offered in B.Tech.VI semester (for batch admitted in 2021-22)) were discussed and finalized.</div> https://drive.google.com/file/d/1_hu1Td8FW2r1gSl7VpPFaPmdbUPBR2qw/view?usp=sharing																			
Item CM 11	<div>To review and finalize the suggestive list of projects which can be offered under the ‘Skill based mini-project’ category in various laboratory components based courses to be offered in B.Tech. VI Semester (for the batch admitted in 2021-22)</div> <div>The suggestive list of projects which can be offered under the ‘Skill based mini-project’ category in various laboratory components based courses to be offered in B.Tech. VI Semester (for the batch admitted in 2021-22) has been reviewed and finalized.</div> https://drive.google.com/file/d/1vozJfhIuCC1zyNWy1DX00Tkur9W2UblA/view?usp=sharing																			

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Item CM 12	<p>To review and finalize the scheme and syllabi of B. Tech. IV Semester (for batch admitted in 2022-23) under the flexible curriculum along with their COs..</p> <p>The scheme and syllabi of B. Tech. IV Semester (for batch admitted in 2022-23) under the flexible curriculum along with their COs have been reviewed and finalized.</p> <p>https://drive.google.com/file/d/1LQBJVhQ-jRyLLQ-ubyZR0HtN9YUFW1Lo/view?usp=sharing</p>
Item CM 13	<p>To review and finalize the Experiment list/ Lab manual for all the Laboratory Courses to be offered in Batch IV semester (for batch admitted in 2022-23)</p> <p>The Experiment list/ Lab manual for all the Laboratory Courses to be offered in Batch IV semester (for batch admitted in 2022-23) were reviewed and finalized.</p> <p>https://drive.google.com/file/d/1cJZXo4d2C3PjYywjv-vCQFLQGS_3h_B/view?usp=sharing</p>
Item CM 14	<p>To review and finalize the suggestive list of projects which can be offered under the ‘Skill based mini-project’ category in various laboratory components based courses to be offered in B. Tech IV Semester (<i>for the batch admitted in 2022-23</i>).</p> <p>The suggestive list of projects which can be offered under the ‘Skill based mini-project’ category in various laboratory components based courses to be offered in B. Tech IV Semester (<i>for the batch admitted in 2022-23</i>). were reviewed , prepared & finalized.</p> <p>https://drive.google.com/file/d/1yz43m1IDUwn60NuZwygbGi1mYIN5adWa/view?usp=sharing</p>
Item CM 15	<p>To review and finalize the scheme and syllabi of B. Tech. II Semester (for batch admitted in 2023-24) under the flexible curriculum along with their COs.</p> <p>The scheme and syllabi of B. Tech. II Semester (for batch admitted in 2023-24) under the flexible curriculum along with their COs has been prepared, reviewed and finalized.</p> <p>https://drive.google.com/file/d/1KV6c7856SisvcX7I71uCy21ogk3HFGtG/view?usp=sharing</p>
Item CM 16	<p>To review and finalize the Experiment list/ Lab manual for all the Laboratory Courses to be offered in Batch II semester (for batch admitted in 2023-24)</p> <p>The Experiment list/ Lab manual for all the Laboratory Courses to be offered in Batch II semester (for batch admitted in 2023-24) were reviewed and finalized.</p> <p>https://drive.google.com/file/d/1gOOY1npKCDHm4FF5Px1xZOMCYe1gug8s/view?usp=sharing</p>
Item CM 17	<p>To review and finalize the suggestive list of projects which can be offered under the ‘Skill based mini-project’ category in various laboratory components based courses to be offered in B. Tech II Semester (<i>for the batch admitted in 2023-24</i>).</p> <p>The suggestive list of projects which can be offered under the ‘Skill based mini-project’ category in various laboratory components based courses to be offered in B. Tech II Semester (<i>for the batch admitted in 2023-24</i>) were reviewed and finalized.</p> <p>https://drive.google.com/file/d/1RWjllxs9JIHft_csm-XItRNLhs-VI3jM/view?usp=sharing</p>
Item CM 18	<p>To review the CO attainments, identify gaps and suggest corrective measures for the improvement in the CO attainment levels for the courses taught in Jan-June 2023 Session.</p> <p>The CO attainments have been reviewed, gaps identified and corrective measures for the improvement in the CO attainment levels have been suggested for Jan-June 2023.</p> <p>https://drive.google.com/file/d/1ZIPiGZIkRtTklqr3d9541XFd8ek7ojTK/view?usp=sharing</p>
Item CM 19	<p>To review the PO attainment, CO-PO mapping matrix and action to be taken to improve PO attainment level.</p> <p>The PO attainment of 2019-2023 batch, CO-PO mapping matrix with attainments and gaps have been reviewed.</p> <p>https://drive.google.com/file/d/1KyawRGktfBOhTOuu5J0xjFY_RWKeoTJa/view?usp=sharing</p>
Item CM 20	<p>To review curricula feedback from various stakeholders, its analysis and impact.</p> <p>The curricula feedback from various stakeholders, its analysis and impact has been done & reviewed.</p> <p>https://drive.google.com/file/d/1cd0hXxMQ4kboNBDDuIArs2ytbQJ_y6cZ/view?usp=sharing</p>

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Item CM 21	To discuss and recommend the scheme structure & syllabi of PG Programme (M.E./M.Tech./MCA/MBA) along with their Course Outcomes (COs) This item is NOT APPLICABLE in the Chemical Engineering Department.
Item CM 22	To recommend the scheme structure and Syllabus of Ph.D. Course Work (specific to Doctoral Research Scholars, if any) This item is NOT APPLICABLE in Chemical Engineering Department
Item CM 23	Any other matter Nil

The meeting ended with the vote of thanks to all the members**Suggestion & Comment**

1. The experts suggested that students should be given enough knowledge about theory before doing experiments in the lab when both theory and lab are included in the same semester.
2. The experts appreciated the proposed scheme and were satisfied with the list of Electives, Open courses and the Core courses included in the curriculum.



Prof. Anish P. Jacob
(Assistant Prof. & Coordinator)