

Phone: Off: +91-40-23158665
Fax: +91-40-23158665
Web : www.jntuh.ac.in
E Mail: pa2registrar@jntuh.ac.in



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
(Established by Govt. Act No.30 of 2008)
Kukatpally, Hyderabad – 500 085, Telangana (India)

DR. N.YADAIAH

B.E (OUCE), M. Tech (IT KGP), Ph.D. (JNTU)
SMIEEE, FIE, FIETE, MSSI, MISTE

**Professor of EEE &
REGISTRAR**

Date: 09.02.2018

Lr.No.D1/960/2018

To,
The Principal,
Malla Reddy Engineering College,
Maisammaguda,
Dhulapally (Post Via Kompally),
Secunderabad.

Sir,

Sub: JNT University Hyderabad-Academic & Planning – Nominations of members for Academic Council, Governing Body and Board of Studies of various Departments of Malla Reddy Engineering College, Maisammaguda, Dhulapally (Post Via Kompally), Secunderabad.

Ref: 1. Your Lr No. MREC/Autonomous/BOS/2017-18/1, dated 17.01.2018.
2. Note Orders of the Vice-Chancellor dated 01.02.2018.

With reference to your letter 1st cited, I am by direction to inform you that the following faculty members of the University are nominated for the following bodies for a period of three years as per the UGC guidelines as desired by you:

I Academic Council (Three members)

S.No	Name of the University Nominee
1	Dr. G.K. Vishwanadh, Prof. of CE & OSD to VC, JNTUH
2	Dr.B. Balu Naik, Prof. of ME & Director, UGC-IIRDC, JNTUH
3	Dr.N.V. Ramana, Prof. of EEE & Principal, JNTUH CEJ

II Governing Body (One member)

S.No	Name of the University Nominee
1	Dr.B.N. Bhandari, Prof. of ECE & Director, Academic & Planning, JNTUH

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(Post Via Kompally), Sec'bad-500 100

Contd...2



III. Board of Studies (One nominee for each department)

S.No	Name of the Department	Courses	Name of the University Nominee
1	Civil	B.Tech/M.Tech	Dr. S. Srinivasulu, Prof of Civil JNTUH CEH
2	EEE	B.Tech/M.Tech	Dr.M. Suryakalavathi, Prof. of EEE, JNTUH CEH
3	Mech/Mining	B.Tech/M.Tech	Dr.K. Vijay Kumar Reddy Prof. of ME, JNTUH CEH
4	ECE	B.Tech/M.Tech	Dr.D.Srinivasa Rao, Prof. of ECE, JNTUH CEH
5	CSE/IT	B.Tech/M.Tech	Dr..V. Kamakshi Prasad, Prof. of CSE, & DE, JNTUH
6	MBA	MBA	Dr.D.Raghunatha Reddy, Prof of SMS, JNTUH
7	Physics	B.Tech	Dr.K. Vijaya Kumar, Assoc. Prof. in Physics, JNTUH CES
8	Chemistry	B.Tech	Dr.A.Jaya Shree, Prof. of Chemistry, CCST, IST, JNTUH
9	Mathematics	B.Tech	Dr.V.Srinivasa Kumar, Asst. Prof in Mathematics, JNTUH CEH
10	English	B.Tech	Dr.V.Parvathi, Prof & Head H&SS, JNTUH CEH

Yours sincerely,


✓ REGISTRAR

Copy to the individuals concerned
Copy to PA to VC/Rector/Registrar for information


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Malla Reddy Engineering College

(AUTONOMOUS)

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NBA Accredited Programmes - UG (CE, EEE, ME, ECE & CSE) PG (CE - Structural Engg., EEE-Electrical Power Systems, ME - Thermal Engg.).

Date: 13/07/2020

ORDER

The Board-of-Studies members Chemistry for the academic year 2020-21 have been reconstituted as some of the previous members relieved from the institute.

S. No	Name of the Member	Designation & Official Address	Category
1	Dr. M. Vijaya Bhaskar Reddy	Assoc. Prof. & HOD, Department of Chemistry, MREC(A)	Chairman - BOS
2	Dr. A. Jaya Shree	Professor of Chemistry, CCST, IST, JNTUH.	University Nominee
3	Dr. P. Veerasomaiah	Professor of Chemistry, O.U, Hyderabad.	Subject Expert (outside the Parent University)
4	Dr.Srinivasarao Yaragorla	Assistant Professor School of Chemistry, University of Hyderabad	Subject Expert (outside the Parent University)
5	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd.	Industry Expert
6	Dr. C. Mahender	Asst. Prof., MREC(A)	Faculty Member
7	Mr. D.Venkat Ramulu	Asst. Prof., MREC(A)	Faculty Member
8	Mr. T. Ramesh	Asst. Prof., MREC(A)	Faculty Member
9	D. Raju	Asst. Prof., MREC(A)	Faculty Member
10	M.V.Shruthi	Asst. Prof.,SCETW	Alumni

Renu
Malla Reddy Engineering College
(Autonomous)
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(Post Via Kompally), Sec'bad-500 100

Ramesh
Principal
Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally,
Sec'bad-500 100



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

Maisammaguda, Dhullapally, Secunderabad-500100

Department of Chemistry

16th July, 2020

The Board of Studies meeting for Chemistry is held through online mode. The following members have attended to review on contents such as Course Schema and Syllabus of MR20 regulations and other points as per agenda.

No	Name of the Member	Designation & Official Address	Category	Signature
	Dr. M. Vijaya Bhaskar Reddy	Assoc. Prof. & HOD, Department of Chemistry, MREC(A)	Chairman - BOS	
	Dr. A. Jaya Shree	Professor of Chemistry, CCST, IST, JNTUH.	University Nominee	ONLINE
	Dr. P. Veerasomaiah	Professor of Chemistry, O.U, Hyderabad.	Subject Expert	ONLINE
	Dr. Srinivasarao Yaragorla	Assistant Professor School of Chemistry, University of Hyderabad	Subject Expert	ONLINE
	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd.	Industry Nominee	ONLINE
	Dr. C. Mahender	Asst. Prof., MREC(A)	Faculty Member	
	Mr. D. Venkat Ramulu	Asst. Prof., MREC(A)	Faculty Member	
	Mr. T. Ramesh	Asst. Prof., MREC(A)	Faculty Member	
	D. Raju	Asst. Prof., MREC(A)	Faculty Member	
	M.V. Shruthi	Asst. Prof., SCETW	Alumni	

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Dated: 14-07-2020

Lr.No: MREC (A)/BOS-Chemistry: 2020-21/Invite/01

To

Prof. A. Jaya Shree
Professor of Chemistry,
CCST, IST
JNTUH, Hyderabad.

Madam,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies for Chemistry for the academic year 2020-21. It is scheduled on 16th July 2020 (Thursday) at 12-00 AM, through online mode.

We request you to make it convenient to attend the meeting.

AGENDA:

1. Review of the schema of instructions of B.Tech for the academics year 2020-21.
2. Proposal/deciding the panel of examiners and valuers.
3. Any other issue with permission of the chair.

Copy to:

1. Registrar, JNTUH
2. P.A to the Vice-Chancellor, JNTUH
3. Director (AAC), JNTUH.


DIRECTOR

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(Post Via Kompally), Sec'bad-500 100.

Chemistry HOD <chehod@mrec.ac.in>



invitation to Board of studies meeting

1 message

Chemistry HOD <chehod@mrec.ac.in>

Mon, Jul 13, 2020 at 9:04 PM

To: Anireddy Jayashree <jayashreeanireddy@gmail.com>, Jayashree@jntuh.ac.in

Respected Madam,

Please find the attachment of invitation for Board of Studies meeting in the Chemistry Department scheduled on 16th July (Thursday), 2020 at 12:00 AM through GOOGLE MEET.

I request you to accept the invitation for BOS meeting.

Thanks Regards

HOD- Dept. of Chemistry

Malla Reddy Engineering College (Autonomous)

 JAYA SREE MADAM.pdf
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Principal
Malla Reddy Engineering
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Dated: 14-07-2020

Lr.No: MREC (A)/BOS-Chemistry: 2020-21/Invite/02

To

Prof. P. Veerasomaiah,
Professor of Chemistry & HOD,
Osmania University,
Hyderabad.

Sir,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies for Chemistry for the academic year 2020-21. It is scheduled on 16th July (Thursday) 2020 at 12-00 AM, through online mode. We request you to make it convenient to attend the meeting.

AGENDA:

1. Review of the schema of instructions of B.Tech for the academics year 2020-21.
2. Proposal/deciding the panel of examiners and valuers.
3. Any other issue with permission of the chair.


DIRECTOR

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Copy to:

1. Registrar, JNTUH
2. P.A to the Vice-Chancellor, JNTUH
3. Director (AAC), JNTUH.


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(Post Via Kompally), Sec'bad-500 100

Chemistry HOD <chehod@mrec.ac.in>

invitation for board of studies meeting

Chemistry HOD <chehod@mrec.ac.in>
To: vs_puppala@rediffmail.com

Mon, Jul 13, 2020 at 9:06 PM

Respected sir,

Please find the attachment of invitation for Board of Studies meeting in the Chemistry Department scheduled on 16th July (Thursday), 2020 at 12:00 AM through GOOGLE MEET.

I request you to accept the invitation for BOS meeting.

Thanks Regards

HOD- Dept. of Chemistry

Malla Reddy Engineering College (Autonomous)

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Dated: 14-06-2020

Lr.No: MREC (A)/BOS-Chemistry: 2020-21/Invite/03

To
Dr. Srinivasarao Yaragorla,
Assistant Professor
School of Chemistry,
University of Hyderabad,
Hyderabad.

Sir,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies for Chemistry for the academic year 2019-20. It is scheduled on 16th July 2020 (Thursday) at 12-00 AM, through online mode. We request you to make it convenient to attend the meeting.

AGENDA:

1. Review of the schema of instructions of B.Tech for the academics year 2020-21.
2. Proposal/deciding the panel of examiners and valuator.
3. Any other issue with permission of the chair.

Copy to:

1. Registrar, JNTUH
2. P.A to the Vice-Chancellor, JNTUH
3. Director (AAC), JNTUH.

Director

DIRECTOR

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Chemistry HOD <chehod@mrec.ac.in>

invitation for Board of Studies meeting

srinivasarao yaragorla <srinivas.yaragorla@uohyd.ac.in>
To: Chemistry HOD <chehod@mrec.ac.in>

Tue, Jul 14, 2020 at 7:28 AM

Dear HoD,

I accept the invitation, and please make a note of the change in my designation (Associate Professor) for future communications.

Thank you.

On Mon, 13 Jul 2020, 21:07 Chemistry HOD, <chehod@mrec.ac.in> wrote:

Respected sir,

Please find the attachment of invitation for Board of Studies meeting in the Chemistry Department scheduled on 16th July (Thursday), 2020 at 12:00 AM through GOOGLE MEET.

I request you to accept the invitation for BOS meeting.

Thanks Regards

HOD- Dept. of Chemistry

Malla Reddy Engineering College (Autonomous)


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Dated: 14-07-2020

Lr.No: MREC (A)/BOS-Chemistry: 2020-21/Invite/04

To
Dr P.Sambasiva Reddy,
M.D, Alta Vista Phytochemicals Pvt Ltd,
Hyderabad.

Sir,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2019-20.

It is pleasure to invite you for the meeting of the Board of Studies for Chemistry for the academic year 2020-21. It is scheduled on 16th July (Thursday) 2020 at 12-00 AM, through online mode.

We request you to make it convenient to attend the meeting.

AGENDA:

1. Review of the schema of instructions of B.Tech for the academics year 2020-21.
2. Proposal/deciding the panel of examiners and valuers.
3. Any other issue with permission of the chair.

Copy to:

1. Registrar, JNTUH
2. P.A to the Vice-Chancellor, JNTUH
3. Director (AAC), JNTUH.


DIRECTOR

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(Post Via Kompally), Sec'bad-500 100


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(Post Via Kompally), Sec'bad-500 100





Chemistry HOD <chehod@mrec.ac.in>

Invitation for Board of Studies meeting

Chemistry HOD <chehod@mrec.ac.in>
To: avpchem@gmail.com

Mon, Jul 13, 2020 at 9:10 PM

Respected sir,

Please find the attachment of invitation for Board of Studies meeting in the Chemistry Department scheduled on 16th July (Thursday), 2020 at 12:00 AM through GOOGLE MEET.

I request you to accept the invitation for BOS meeting.

Thanks Regards

HOD- Dept. of Chemistry

Malla Reddy Engineering College (Autonomous)

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MALLA REDDY ENGINEERING COLLEGE

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Department of Chemistry

Minutes of Meeting Chemistry BOS

16th July, 2020

The Board of studies meeting for the Chemistry is conducted on 16-07-2020 at 11:45 AM through online mode by Google meet in the placement cell, Malla Reddy Engineering College (Autonomous), Hyderabad

The following BOS Members have attended the Meeting:

S. No	Name of the Member	Designation & Official Address	Category
1	Dr. M. Vijaya Bhaskar Reddy	Assoc. Prof. & HOD, Department of Chemistry, MREC(A)	Chairman - BOS
2	Dr. A. Jaya Shree	Professor of Chemistry, CCST, IST, JNTUH.	University Nominee
3	Dr. P. Veerasomaiah	Professor of Chemistry, O.U, Hyderabad.	Subject Expert (outside the Parent University)
4	Dr.Srinivasarao Yaragorla	Assistant Professor School of Chemistry, University of Hyderabad	Subject Expert (outside the Parent University)
5	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd.	Industry Expert
6	Dr. Ch. Mahender	Asst. Prof., MREC(A)	Faculty Member
7	Mr. D.Venkat Ramulu	Asst. Prof., MREC(A)	Faculty Member
8	Mr. T. Ramesh	Asst. Prof., MREC(A)	Faculty Member
9	D. Raju	Asst. Prof., MREC(A)	Faculty Member
10	M.V.Shruthi	Asst. Prof., SCETW	Alumni

Handwritten signature
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Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhullapally,
Sec'bad-500 100
(Post Via Kompally)



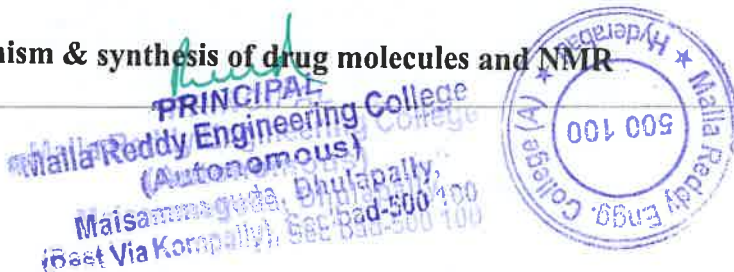
The following is the agenda of the meeting:

1. Discussion and approval of syllabus of Chemistry subject, open electives and Environmental science of B. Tech. MR 20 regulations.
2. Suggestions and review of panel for Paper setters, and examiners for examinations.
3. Suggest methodologies for innovative teaching and evaluation techniques.
4. Suggestions of any activity related to research, teaching, extension and other academic activities in the department/college.
5. Delegation of power to the Chairman-BOS based on recommendations of the internal committee, for the inclusion and exclusion of any item as per requirements.
6. Approval of any other item with the permission of the Chairman.

At the outset, Dr. M. Vijaya Bhaskar Reddy, HOD and Chairman of the Chemistry - Board of Studies, welcomed the members to the BOS meeting and informed the purpose of the meeting. He also briefed about the previous BOS meeting resolutions and placed on record the existing syllabus of MR18 regulations and also proposed modifications in the syllabus for next academic year 2020-21. Later Board of studies Members have in detailed discussion, reviewed each item of the proposed agenda and finally the following items have been resolved unanimously by all the members of BOS.

The following resolutions are made after careful discussion regarding the observations to be implemented in the next Regulations.

1. Proposed separate chemistry papers for circuit and non-circuit branches but JNTUH nominee and other subject experts suggested to frame one common paper for all branches.
2. CSE & IT departments suggested to remove chemistry course for them but JNTUH nominee and other subject experts opposed to remove chemistry course for CSE and IT branches.
3. BOS members suggested to remove quinhydrone electrode from module III of engineering chemistry syllabus.
4. BOS members suggested remove coupling constant from module IV of engineering chemistry syllabus.
5. In Engineering Chemistry, module-II (Molecular structure & Theories of Bonding)
 $[\text{Ni}(\text{CN})_4]^{2-}$ is replaced with $[\text{Ni}(\text{CO})_4]$.
6. Module-IV (Stereochemistry and NMR spectroscopy) and module-V (Reaction mechanism & synthesis of drug molecules) are merged and studied under module-IV and entitled as
"Stereochemistry, Reaction mechanism & synthesis of drug molecules and NMR spectroscopy"



7. The following topics are removed from Module-IV (i) synthesis of nylon-6 (ii) addition reactions (iii) Coupling constant.
8. BOS members suggested to replace synthesis of ibuprofen with aspirin in Module-IV.
9. Newly fuels and combustion introduced as module-V.
10. In engineering chemistry lab experiment no 3 title has been changed to **"Estimation of an acid by P^H metry"**.
11. In Environmental Science the title of module -V has been changed to **Sustainable Development**.
12. Open Elective **"Chemistry of Engineering Materials"** was replaced with new open elective entitled as **"Chemistry in daily life"**.
13. In nano chemistry open elective module-I, title to be change from **"Nanochemistry-I"** to **"Synthesis of Nano materials"**
14. In nano chemistry open elective module-II, title to be change from **"Nanochemistry-II"** to **"Properties of nano materials"**.
15. In nano chemistry open elective module-II, **"luminescence"** and **"fluorescence"** are to be removed.
16. In nano chemistry open elective module II, Quantum dot has to be removed.
17. In nano chemistry module-III, suggested to add Principle and block diagram for SEM, EDS TEM, DLS and AFM.
18. In nano chemistry open elective module-IV, title to be change from **"Carbon nano tubes and applications"** to **"Carbon nano structures and applications"**.
19. In nano chemistry open elective module-IV, (Carbon nano structures and applications) all the contents are reshuffled as **"carbon nano structures, carbon clusters, types and preparation of carbon nano tubes-optical and telecommunication applications, nano structured crystals (graphite), graphene, carbon fibers, fullerenes and their applications"**. Nano solar cells and its applications for the continuity.
20. No changes are made in Polymer chemistry open elective.

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(Post Via Kompally), Sec'bad-500 100

M. B. Reddy
Chairman- BOS
(Dr. M. Vijaya Bhaskar Reddy)





MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(UGC Autonomous Institution, Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad). Accredited 2nd time by NAAC with 'A' Grade, Maisammaguda (H), Medchal-Malkajgiri District, Secunderabad, Telangana State – 500100, www.mrec.ac.in

Department of Chemistry

Board of Studies meeting held on 05.02.2021 at 11:00 AM

The Board of Studies meeting for the Department of Chemistry is convened on **05.02.2021 at 11:00 AM** through online mode by Google meet in the conference hall, Malla Reddy Engineering College (Autonomous), Hyderabad

Action Taken Report (ATR) on previous BoS Meeting in AY 2020-21

The previous Board of studies meeting in AY 2020-21 was held on dt: 16th July 2020. The following are the resolutions made in the meeting and corresponding action taken are as follows.

Resolution 1: Proposed separate chemistry papers for circuit and non-circuit branches but JNTUH nominee and other subject experts suggested to frame one common paper for all branches.

Action Taken: Committee opposed separate chemistry paper for circuit and non-circuit branches and suggested to prepare common syllabus for all branches.

Resolution 2: CSE & IT departments proposed to remove chemistry course for them.

Action Taken: JNTUH nominee and other subject experts opposed to remove chemistry course for CSE and IT branches.

Resolution 3: BOS members suggested to remove quinhydrone electrode from module III of engineering chemistry syllabus.

Action Taken: Implemented in MR20 regulations syllabus from 2020-21 onwards.

Resolution 4: BOS members suggested to remove coupling constant from module IV of engineering chemistry syllabus.

Action Taken: Removed "coupling constant" from module-III in the engineering chemistry syllabus.

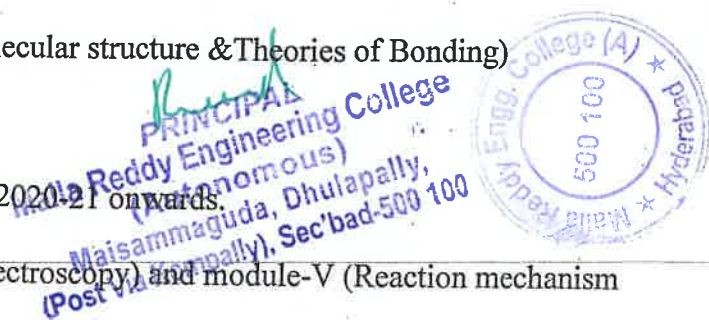
Resolution 5: In Engineering Chemistry, module-II (Molecular structure & Theories of Bonding)

$[\text{Ni}(\text{CN})_4]^{2-}$ is replaced with $[\text{Ni}(\text{CO})_4]$.

Action Taken: Implemented in MR20 regulations from 2020-21 onwards.

Resolution 6: Module-IV (Stereochemistry and NMR spectroscopy) and module-V (Reaction mechanism & synthesis of drug molecules) are merged and studied under module-IV and entitled as

"Stereochemistry, Reaction mechanism & synthesis of drug molecules and NMR spectroscopy"



Action Taken: Committee approved to merge the **module-IV & V** including title and it is being implemented from the academic year 2020-21 as **“Stereochemistry, Reaction mechanism & synthesis of drug molecules and NMR spectroscopy”**.

Resolution 7: The following topics are removed from Module-IV (i) synthesis of nylon-6 (ii) addition reactions (iii) Coupling constant.

Action Taken: Implemented in MR20 regulations from 2020-21 onwards.

Resolution 8: BOS members suggested to replace synthesis of ibuprofen with aspirin in Module-IV.

Action Taken: Committee approved to replace synthesis of ibuprofen with aspirin in Module-IV and it is being implemented from the academic year 2020-21.

Resolution 9: New Module **“Fuels and combustion”** is introduced as module-V.

Action Taken: Implemented in MR20 regulations 2020-21 onwards.

Resolution 10: In engineering chemistry lab experiment no 3 title has been changed to **“Estimation of an acid by P^H metry”**.

Action Taken: The title of experiment no 3 in chemistry lab has been changed to **“Estimation of an acid by P^H metry”** and it is being implemented from the academic year 2020-21.

Resolution 11: In Environmental Science the title of module -V has been changed to **Sustainable Development**.

Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards

Resolution 12: Open Elective **“Chemistry of Engineering Materials”** was replaced with new open elective entitled as **“Chemistry in daily life”**.

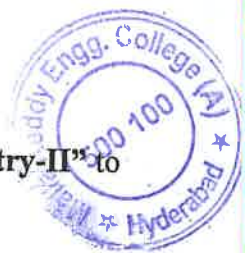
Action Taken: Committee approved to replace the **“Chemistry of Engineering Materials”** with **“Chemistry in daily life”** and it is being implemented from the academic year 2020-21.

Resolution 13: In nano chemistry open elective module-I, title to be change from **“Nanochemistry-I”** to **“Synthesis of Nano materials”**

Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards

Resolution 14: In nano chemistry open elective module-II, title to be change from **“Nanochemistry-II”** to **“Properties of nano materials”**.

Action Taken: Committee approved to change the **module-II** title as **“Properties of nano materials”** and it is being implemented from the academic year 2020-21.



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(Post Via Kompally), Sec'bad-500 100

Resolution 15:In nano chemistry open elective module-II, “**luminescence**” and “**fluorescence**”has to be removed.

Action Taken:The above mentioned topics removed from module-II and it is being implemented from the academic year 2020-21.

Resolution 16:In nano chemistry open elective module II, Quantum dot has to be removed.

Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards.

Resolution 17:In nano chemistry module-III, suggested to add Principle and block diagram for SEM, EDS TEM, DLS and AFM.

Action Taken:The proposed topics are included in the syllabus and it is being implemented from the academic year 2020-21.

Resolution 18:In nano chemistry open elective module-IV, title to be change from “**Carbon nano tubes and applications**” to “**Carbon nano structures and applications**”.


Action Taken:Committee approved to changethe **module-IV** title as “**Carbon nano structures and applications**”and it is being implemented from the academic year 2020-21.

Resolution 19:In nano chemistry open elective module-IV, (Carbon nano structures and applications) all the contents are reshuffled as “**carbon nano structures, carbon clusters, types and preparation of carbon nano tubes-optical and telecommunication applications, nano structured crystals (graphite), graphene, carbon fibers, fullerenes and their applications**”. Nano solar cells and its applications for the continuity.

Action Taken:Implementing in MR20 regulations from the academic year 2020-21 onwards.

Resolution 20:No changes are made in Polymer chemistry open elective.

Action Taken: Implementing without changes in the open elective “**Polymerchemistry**”.


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Chairman – BOS

(Dr. M. Vijaya Bhaskar Reddy)



Chemistry HOD <chehod@mrec.ac.in>

UPDATED chemistry department syllabus and minutes of BOS 2020-21

jaya shree <jayashree@jntuh.ac.in>
To: Chemistry HOD <chehod@mrec.ac.in>

Mon, Oct 19, 2020 at 7:29 PM

Dear sir

The enclosed syllabus for 20-21 is approved

Regards

Prof. A. Jaya Shree, FTAS., FRSC.
Professor of Chemistry
HEAD, Centre for Chemical Sciences and Technology, Institute of Science and Technology, Jawaharlal Nehru
Technological University Hyderabad, 500085, INDIA

mobile 9491442444,
email: jayashree@jntuh.ac.in

On Mon, 19 Oct 2020, 14:44 Chemistry HOD, <chehod@mrec.ac.in> wrote:

Sir/Madam

Please find the attached chemistry syllabus and minutes. As per the director sir instructions I request you to give acceptance through mail.

Dr. M.VIJAYA BHASKAR REDDY

M.Sc., Ph.D. (S.V Uni.), Post Doc (Taiwan & USA)

HOD, DEPARTMENT OF CHEMISTRY

Malla Reddy Engineering College (Autonomous)

Hyderabad

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Chemistry HOD <chehod@mrec.ac.in>

UPDATED chemistry department syllabus and minutes of BOS 2020-21

pin met <vs_puppala@rediffmail.com>
To: Chemistry HOD <chehod@mrec.ac.in>

Mon, Oct 19, 2020 at 4:10 PM

sir,

I HAVE SEEN THE ENTIRE SYLLABUS OF. THE THEORY AND PRACTICALS OF ENGINEERING CHEMISTRY AND THE THREE ELECTIVES.THEY ARE IN PERFECT ORDER.I AM APPROVING THE SYLLABUS AS IT IS.

THIS IS FOR YOUR INFORMATION.

WITH REGARDS,
PROF P.VEERA SOMAIAH.
DEPT.OF CHEMISTRY,
O.U. HYD.

From: Chemistry HOD <chehod@mrec.ac.in>
Sent: Mon, 19 Oct 2020 14:44:07 GMT+0530
To: Jayashree@jntuh.ac.in, Anireddy Jayashree <jayashreeanireddy@gmail.com>, vs_puppala@rediffmail.com, srinivas.yaragorla@uohyd.ac.in, avpchem@gmail.com, xenonbiosciences@gmail.com
Subject: UPDATED chemistry department syllabus and minutes of BOS 2020-21

Sir/Madam

Please find the attached chemistry syllabus and minutes. As per the director sir instructions I request you to give acceptance through mail.

Dr. M.VIJAYA BHASKAR REDDY

M.Sc., Ph.D. (S.V Uni.), Post Doc (Taiwan & USA)

HOD, DEPARTMENT OF CHEMISTRY

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Chemistry HOD <chehod@mrec.ac.in>

UPDATED chemistry department syllabus and minutes of BOS 2020-21

Srinivasarao Yaragorla <srinivas.yaragorla@uohyd.ac.in>
To: Chemistry HOD <chehod@mrec.ac.in>

Mon, Oct 19, 2020 at 3:58 PM

Dear HOD,

The syllabus looks good now, and I believe that the students will get the benefit from it.

Best Regards
Srinivasarao

Srinivasarao Yaragorla, Ph.D.
Associate Professor
School of Chemistry
University of Hyderabad
Central University, P.O, Gachibowli
Hyderabad, 500046, Telangana, India
Phone: +91-40-2313 4833 (Office)
Webpage: <https://sites.google.com/view/srinivasarao-yaragorla>
<http://chemistry.uohyd.ac.in/ysr.htm>
Google Scholar



Sender notified by
Mailtrack

On Mon, Oct 19, 2020 at 2:44 PM Chemistry HOD <chehod@mrec.ac.in> wrote:

Sir/Madam

Please find the attached chemistry syllabus and minutes. As per the director sir instructions I request you to give acceptance through mail.

Dr. M.VIJAYA BHASKAR REDDY

M.Sc., Ph.D. (S.V Uni.), Post Doc (Taiwan & USA)

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Chemistry HOD <chehod@mrec.ac.in>

UPDATED chemistry department syllabus and minutes of BOS 2020-21

Sambasiva Reddy Poreddy <xenonbiosciences@gmail.com>
To: Chemistry HOD <chehod@mrec.ac.in>

Mon, Oct 19, 2020 at 7:39 PM

Dear Dr. Vijaya Bhaskar Reddy

I have gone through the modified syllabus and given my acceptance to proceed further.

Thank you
with Regards
Sambasiva Reddy

Dr. Sambasiva R Poreddy
Xenon Biosciences
Plot No: 22-B, Road # 2
Venkataramana Colony, Vanasthalipuram
Hyderabad-500070, India
Phone: +91-9849601776
www.xenonbio.com
www.withaferina.com


On Mon, Oct 19, 2020 at 2:44 PM Chemistry HOD <chehod@mrec.ac.in> wrote:

Sir/Madam

Please find the attached chemistry syllabus and minutes. As per the director sir instructions I request you to give acceptance through mail.

Dr. M.VIJAYA BHASKAR REDDY
M.Sc., Ph.D. (S.V Uni.), Post Doc (Taiwan & USA)
HOD, DEPARTMENT OF CHEMISTRY
Malla Reddy Engineering College (Autonomous)
Hyderabad

R. Reddy
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2020-21 Onwards (MR-20)	MALLA REDDY ENGINEERING COLLEGE (Autonomous)	B.Tech		
Code: A0B017	Engineering Chemistry (Common for CSE, IT, ECE, EEE, CE, ME and Min.E)	L	T	P
Credits: 4		3	1	-

Course objectives:

The purpose of this course is to emphasize the relevance of fundamentals of chemical sciences in the field of engineering and to provide basic knowledge on atomic- molecular orbital's, electrochemistry, batteries, corrosion and the role of water as an engineering material in domestic-industrial use. They will also impart the knowledge of stereochemistry, understanding the chemical reaction path way mechanisms and synthesis of drugs. Listing out various types of fuels and understanding the concept of calorific value and combustion.

Module I: Water and its treatment

[10 Periods]

Introduction to water, hardness of water, causes of hardness, expression of hardness, units and types of hardness-Numerical Problems. Alkalinity of water, specifications of potable water (BIS); Estimation of temporary & permanent hardness of water by EDTA method. Boiler troubles - Scale & Sludge, Priming and foaming, caustic embrittlement and boiler corrosion; Treatment of boiler feed water - Internal treatment (colloidal, phosphate, carbonate and calgon conditioning). External treatment - Lime Soda process (cold & hot) and ion exchange process, Numerical Problems. Disinfection of water by chlorination and ozonization. Desalination by Reverse osmosis and its significance.

Module II: Molecular structure and Theories of Bonding:

[10 Periods]

Introduction to Molecular orbital Theory. Linear Combination of Atomic Orbital's (LCAO), significance of bonding and anti-bonding molecular orbital, Conditions for the formation of molecular orbital's. Molecular orbital energy level diagrams of diatomic molecules -, N_2 , O_2 and F_2 . Introduction to coordination compounds-ligand-coordination number (CN) - spectrochemical series. Salient features of crystal field theory, Crystal field splitting of transition metal complexes in octahedral ($[CoF_6]^{3-}$ and $[Co(CN)_6]^{3-}$) and tetrahedral ($[NiCl_4]^{2-}$ and $[Ni(CO)_4]$) fields - magnetic properties of complexes. Band structure of solids and effect of doping on conductance.

Module III: Electrochemistry and Corrosion

A. Electrochemistry:

[7 Periods]

Introduction to Electrochemistry-Conductance (Specific and Equivalent) and units. Types of cells-electrolytic & electrochemical cells (Galvanic Cells)-Electrode potential- cell potential (EMF).Electrochemical series and its applications, Nernst equation its applications and numerical problems. Reference electrodes - Calomel Electrode and Glass electrode-determination of pH using glass electrode. Batteries: Primary (dry cells) and secondary (Lead-Acid cell, Ni-Cd cell) - applications of batteries. Fuel cells: Hydrogen - Oxygen fuel cell and its

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applications.

B. Corrosion:

[7 Periods]

Causes and effects of corrosion: Theories of corrosion - Chemical & Electrochemical corrosion, Pilling-Bedworth rule, Types of corrosion: Galvanic and Water-line corrosion. Factors affecting rate of corrosion-Nature of metal and Nature of Environment, Corrosion control methods - Cathodic protection (Sacrificial anodic and impressed current cathodic methods). Surface coatings: Methods of metallic coatings - hot dipping (Galvanization), Electroplating (Copper) and Electroless plating (Nickel).

Module IV: Stereochemistry, Reaction mechanism & synthesis of drug molecules and NMR spectroscopy:

[12 Periods]

Introduction to Isomers - classification of isomers - structural (chain, positional & functional) and stereoisomerism-geometrical (cis-trans & E-Z system) - characteristics of geometrical isomerism, optical isomerism (chirality - optical activity, specific rotation, enantiomers and diastereomers) of tartaric acid and lactic acid. Conformational isomerism of n-Butane. Introduction to bond cleavage (homo & hetero cleavage) - reaction intermediates and their stability. Types of organic reactions - Mechanism of substitution (SN^1 & SN^2) and (E_1 & E_2) reactions with suitable example. Ring opening (Beckmann rearrangement), oxidation and reduction (Cannizzaro reaction), cyclization (Components of Diels-Alder reaction-Mechanism of Diels-Alder reaction with suitable example) reactions. Synthesis of Paracetamol, Aspirin and their applications.

Introduction to Spectroscopy, Basic concepts of nuclear magnetic resonance spectroscopy, chemical shift and spin-spin splitting.

UNIT-V Fuels and Combustion

[08 Periods]

Fuels: Classification- solid fuels: coal – analysis of coal – proximate and ultimate analysis and their significance. Liquid fuels – petroleum and its refining, cracking – types – moving bed catalytic cracking. Knocking – octane and cetane rating, synthetic petrol - Fischer-Tropsch's process; Gaseous fuels – composition and uses of natural gas, LPG and CNG. **Combustion:** Definition, Calorific value of fuel – HCV, LCV; Calculation of air quantity required for combustion of a fuel. Determination of calorific value by Junkers gas calorimeter-Numerical problems on combustion.

Text Books:

1. P.C.Jain and Monica Jain, "A Text Book of Engineering Chemistry", DhanpatRai Publications, New Delhi, 16th Edition 2014.
2. S.S. Dara and S.S. Umare, "A Text Book of Engineering Chemistry", S Chand Publications, New Delhi, 12th Edition 2010.
3. A.Jaya Shree, "Text book of Engineering Chemistry", Wiley, New Delhi, 2018.

Reference Books:



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1. B.Rama Devi, Ch.VenkataRamana Reddy and PrasanthaRath, "Text Book of Engineering chemistry", Cengage Learning India Pvt.Ltd,2016.
2. M.G. Fontana and N. D. Greene, "Corrosion Engineering", McGraw Hill Publications, New York, 3rd Edition, 1996.
3. K. P. C. Vollhardt and N. E. Schore, "Organic Chemistry: Structure and Function", 5th Edition, 2006.

e-Resources:

a) Concerned Website links:

- 1) <https://books.google.co.in/books?isbn=0070669325> (Engineering chemistry by Sivasankar).
- 2) <https://www.youtube.com/watch?v=yQUD2vzfg8> (Hot dipping Galvanization).
- 3) https://archive.org/stream/VollhardtOrganicChemistryStructureFunction6th/Vollhardt_Organic_Chemistry_Structure_Function_6th_djvu.txt.

b) Concerned Journals/Magazines links:

- 1) <http://americanhistory.si.edu/fuelcells/sources.htm> (Fuel Cell Information Sources)
- 2) <https://www.abctlc.com/downloads/courses/WaterChemistry.pdf> (Water Chemistry)

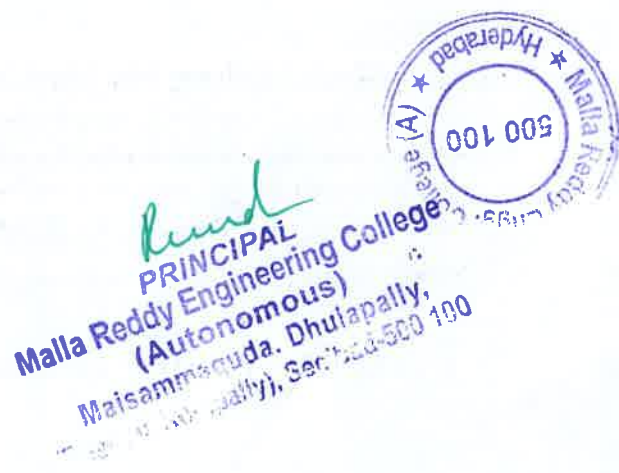
c) NPTEL Videos:

- 1) nptel.ac.in/courses/113108051/ (corrosion & electrochemistry web course)
- 2) <https://www.youtube.com/watch?v=V7-8EOfZKeE> (Stereochemistry)

Course Outcomes:

After completion of the course students will be able to:

1. Understand water treatment, specifically hardness of water and purification of water by various methods.
2. Analyze microscopic chemistry in terms of atomic and molecular orbital's splitting and band theory related to conductivity.
3. Acquire knowledge on electrochemical cells, fuel cells, batteries and their applications.
4. Acquire basic knowledge on the concepts of stereochemistry, reaction mechanisms and interpretation of NMR in organic molecules.
5. Acquire the knowledge of various fuels and identify a better fuel source of less pollution.



2020-21 Onwards (MR-20)	MALLA REDDY ENGINEERING COLLEGE (Autonomous)	B.Tech.		
Code: A0B18	Engineering Chemistry Lab (Common for CSE, IT, ECE, EEE, CE, ME and Min.E)	L	T	P
Credits: 1		-	-	2

Course objectives:

To provide the students with practical knowledge of quantitative analysis of materials by classical and instrumental methods for developing experimental skills in building technical competence.

List of Experiments:

1. Calibration of Volumetric apparatus.
2. Estimation of Total Hardness of water by EDTA Method.
3. Estimation of an acid by P^H metry.
4. Estimation of alkalinity of water.
5. Estimation of strength of an acid by Conductometry.
6. Estimation of strength of an acid by Potentiometry.
7. Estimation of Mn^{+2} ion in $KMnO_4$ by Colorimetry.
8. Determination of viscosity of given liquids by Ostwald's viscometer.
9. Determination of surface tension of given sample using stalagmometer.
10. Estimation of iron (II) by dichrometry.
11. Determination of rate constant of hydrolysis of methyl acetate.
12. Preparation of Aspirin.

Course outcomes:

After completion of the course, students will be able to:

1. Estimate the hardness of given water samples.
2. Select lubricants for various purposes.
3. Prepare advanced polymers & drug materials.
4. Know the strength of an acid present in batteries.
5. Calculate the amount of Mn^{+2} present in unknown substances/ores using instrumental methods.

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2020-21 Onwards (MR-20)	MALLA REDDY ENGINEERING COLLEGE (Autonomous)	B.Tech		
Code: A00M2	ENVIRONMENTAL SCIENCE (Common for CSE, ECE, EEE, IT, CE, ME and Min.E)	L	T	P
Credits: Nil		3	-	-

Pre-requisite: Nil

Course Objectives:

An interdisciplinary approach to complex environmental problems using basic tools of the natural and social sciences, including geo systems, biology, chemistry, economics, political science and international processes. The ability to work effectively as a member of an interdisciplinary team on complex problem of environment.

Module I: Ecosystems: [5 Periods]

Definition, Scope and Importance of ecosystem, Concept of ecosystem, Classification of ecosystems, Structure and Structural Components of an ecosystem, Functions of ecosystem, Food chains, food webs and ecological pyramids. Flow of energy.

Module II: Natural resources, Biodiversity and Biotic resources:

A) Natural Resources: [5 Periods]

Classification of Resources: Living and Non-Living resources, Renewable and non-renewable resources. Water resources: use and over utilization of surface and ground water, floods and droughts, Dams: benefits and problems. Mineral resources: use and exploitation, environmental effects of extracting and using mineral resources—case studies. Energy resources: growing energy needs, introduction to renewable and non renewable energy sources.

B) Biodiversity and Biotic resources: [4 Periods]

Introduction, Definition, genetic, species and ecosystem diversity. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and intrinsic values. Threats to Biodiversity (habitat loss, poaching of wildlife, man-wild life conflicts). Conservation of Biodiversity (In-situ and Ex-situ conservation),

Activity: case studies.

Module III: ENVIRONMENTAL POLLUTION AND CONTROL: [5+4 Periods]

A) Classification of pollution and pollutants, Causes, effects and control technologies. Air Pollution: Primary and secondary pollutants, Automobile and Industrial pollution, Ambient air quality standards. Water pollution: Point and non-point sources of pollution, Major pollutant of water and their sources, drinking water quality standards.

B) Soil Pollution, Soil as sink for pollutants, Impact of modern agriculture on soil, degradation of soil. Marine Pollution: Misuse of International water for dumping of hazardous waste, Coastal pollution due to sewage and marine disposal of industrial effluents. E-waste and its management. Activity: Field visit.

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Module IV: Global Environmental Problems and Global effects:**[06 Periods]**

Green house effect, Green House Gases (GHG), Global Warming, Sea level rise, climate change and their impacts on human environment. Ozone depletion and Ozone depleting substances (ODS). Deforestation and desertification. International conventions/Protocols: Earth summit, Kyoto protocol and Montréal Protocol.

Activity: Poster Making.

Module V: Sustainable development:**[05 Periods]**

Concept of Sustainable Development, Threats to Sustainability, Population and its explosion, Crazy Consumerism, Over-exploitation of resources, Strategies for Achieving Sustainable development, Environmental Education, Conservation of Resources, Urban Sprawl, Sustainable Cities and Sustainable Communities, Human health, Role of IT in Environment, Environmental Ethics, Environmental Economics, Concept of Green Building, Clean Development Mechanism(CDM).

Text Books:

1. R.Rajagopalan, "Environmental Studies from crisis to cure", Oxford University Press 2nd Edition, 2005.
2. Anubha Kaushik, C.P.Kaushik, "Environmental studies" New age International Publishers, 4th Edition, 2012

Reference Books:

1. Erach Bharucha, "Environmental studies" University Grants Commission, and University Press, I Edition, 2005.
2. M. Anji Reddy "Text book of Environmental Science and Technology" 3rd Edition, 2007
3. Richard T. Wright, "Environmental Science: towards a sustainable future" PHL Learning, Private Ltd. New Delhi, 2nd Edition., 2008
4. Gilbert McMasters and Wendell P. Ela, "Environmental Engineering and science", 3rd Edition, PHI Learning Pvt. Ltd., 2008.

Course Outcomes:

After completion of the course, students will be able to:

1. To enable the students to realize the importance of ecosystem, its structure, services. To make the students aware of Different natural functions of ecosystem, which helps to sustain the life on the earth.
2. To use natural resources more efficiently.
3. To make the students aware of the impacts of human actions on the environment, its effects and minimizing measures to mitigate them.
4. To educate the students regarding environmental issues and problems at local, national and international level.
5. To know more sustainable way of living.

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NEW

2020-21 Onwards (MR-20)	MALLA REDDY ENGINEERING COLLEGE (Autonomous)	B.Tech		
Code: A0B19	CHEMISTRY IN DAILY LIFE (Open Elective-1)	L	T	P
Credits: 3	(Common for CE,EEE,ME,ECE,CSE,IT and Min.E)	3	-	-

Course Objectives:

1. Understanding the concept of food additives, artificial sweeteners, flavors and their analysis of dairy products and beverages.
2. Acquiring the knowledge of paints pigments, dyes and fertilizers.
3. Acquiring knowledge of Carbohydrates, Proteins and vitamins.
4. Understanding the concept of Oils, fats and acquiring knowledge of different drugs.
5. Conceptual knowledge of Colloids and surfactants.

Module-I

[10 periods]

Dairy Products: Composition of milk and milk products. Analysis of fat content, minerals in milk and butter. Estimation of added water in milk.

Beverages: Analysis of caffeine in coffee and tea, detection of chicory in coffee, chloral hydrate in toddy, estimation of methyl alcohol in alcoholic beverages.

Food additives, adulterants and contaminants- Food preservatives like benzoates, propionates, sorbates, disulphites.

Artificial sweeteners: Aspartame, saccharin, dulcin, sucralose and sodium cyclamate.

Flavours: Vanillin, alkyl esters (fruit flavors) and monosodium glutamate.

Module-II

[10 periods]

Paints & Pigments: White pigments (white-lead, ZnO, lithopone, TiO₂). Blue, red, yellow and green pigments. Paints and distempers: Requirement of a good paint. Emulsion, latex; luminescent paints. Fire retardant paints and enamels, lacquers. Solvents and thinners for paints.

Dyes: Colour and constitution (electronic concept). Classification of dyes. Methods of applying dyes to the fabrics. A general study of azo dyes, Mordant brown, Congo red and methylorange.

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Fertilisers: Classification of Fertilizers- Straight Fertilizers, Compound/Complex Fertilizers, Fertilizer Mixtures. Manufacture and general properties of Fertilizer products- Urea and DAP.

Module-III

[10 periods]

(A) Carbohydrates: Structure, function and Chemistry of some important mono and disaccharides. **Proteins:** Introduction to amino acids, peptide bond, polypeptides, proteins, structure of primary, secondary, tertiary and quaternary Proteins, denaturation of proteins.

(B) Vitamins: Classification and Nomenclature. Sources, deficiency diseases and structures of Vitamin A₁, Vitamin B₁, Vitamin C, Vitamin D, Vitamin E

Module-IV

[10 periods]

Oils and fats: Composition of edible oils, detection of purity, rancidity of fats and oil. Tests for adulterants like argemone oil and mineral oils.

Drugs: Classification and nomenclature. Structure and functions of :

Analgesics – Aspirin, Paracetamol

Anthelmintic drug – Mebendazole

Anti allergic drug- Chloropheniramine maleate

Antibiotics – Penicillin V, Chloramphenicol

Anti inflammatory agent- Oxyphenbutazone

Anti malarial - Chloroquine

Module-V:

[10 periods]

Colloids and surfactants: Introduction to solution-types of colloids-characteristics of lyophilic and lyophobic solutions-preparation of colloids (Dispersion methods & Aggregation methods)- purification of colloids (Dialysis, Electrodialysis and Ultrafiltration). Characteristics of colloidal solutions-coagulation of colloids-origin of charge on colloids-protective colloids-emulsions-gels-


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5. Foods: Facts and Principles. N. Shakuntala Many and S. Swamy, 4th ed. New Age International (1998)
6. Handbook on Fertilizer Technology by Swaminathan and Goswamy, 6th ed. 2001, FAI.

Course Outcomes:

1. Understand the concept of food products and their analysis.
2. Acquire the knowledge of paints pigments, dyes and fertilizers.
3. Understand the structure and functions of Carbohydrates and Proteins. Acquire the knowledge of different types of Vitamins.
4. Understand the concept of Oils, fats and acquire knowledge of different drugs with examples.
5. Understand the characteristics of colloids and classification of surfactants.



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applications or colloids. Introduction to surfactants-classification of surfactants-CMC (critical micelle concentration)-HLB scale-detergents-cleaning action.

References :

1. B. K. Sharma: introduction to Industrial Chemistry, Goel Publishing, Meerut (1998).
2. Medicinal Chemistry by Ashtoush Kar.
3. Drugs and Pharamaceutical Sciences Series, Marcel Dekker, Vol. II, INC, New York.
4. Analysis of Foods – H.E. Cox: 13. Chemical Analysis of Foods – H.E.Cox and pearson.



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2020-21 Onwards (MR-20)	MALLA REDDY ENGINEERING COLLEGE (Autonomous)	B.Tech.		
Code: A0B20	NANO CHEMISTRY (Open Elective-2) (Common for CE,EEE,ME,ECE,CSE,IT and Min.E)	L	T	P
Credits: 3		3	-	-

Course Objectives:

The objective is to make the learners know about the scope of nano scale materials and their versatile properties. To give knowledge of various instrumental techniques to the analysis the nano materials. To make aware of the learners of different applications of nano materials.

Module-I: Synthesis of Nano materials [8 Periods]

Introduction -synthesis of nano structure materials, Bottom-up approach and Top-down approach with examples-sol-gel method-solvothermal and hydrothermal routes, Chemical Vapor Deposition and precipitation methods.

Module-II: Properties of nano materials [10 Periods]

Properties of nano materials-Electronic properties, Energy bands and gaps in semiconductors, Fermi surfaces-Optical properties- Fluorescence, Photoluminescence,Electroluminescence,. Magnetic properties-mechanical properties-thermal properties.

Module-III: Instrumental Analysis [10 Periods]

A) Characterization techniques- Principle and block diagram of Scanning Electron Microscopy (SEM), Electron Dispersion Spectroscopy (EDS)

B) Principle and block diagram of Electron Microscopy (TEM), Dynamic Light Scattering (DLS) and Atomic Force Microscopy(AFM) -Illustrative examples.

Module-IV: Carbon Nano structures and Applications [10 Periods]

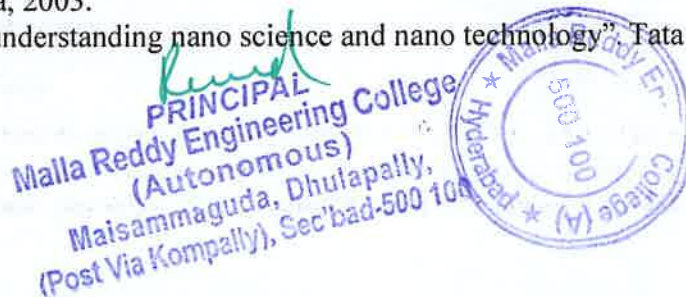
Carbon nano structures, carbon clusters, types and preparation of carbon nano tubes-optical and telecommunication applications, nano structured crystals (graphite), graphene, carbon fibers, fullerenes and their applications. Nano solar cells and its applications

Module-V: Environmental Nano technology [9 Periods]

Implications of Nano technology & Research needs-Nano structured Catalysts TiO_2 Nano particles for Water purification- Nano membranes in drinking water treatment and desalination, Nano membranes in Sea desalination-Nano particles for treatment of Chlorinated Organic Contaminants.

Text Books:

1. Mark A. Ratner, D. Ratner. "Nano technology a gentle introduction to the next big idea", Pearson Education Inc., Asia, 2003.
2. Pradeep.T. "Nano: The essentials-understanding nano science and nano technology" Tata Mc.Graw Hill, New Delhi, 2007.



Reference Books:

1. A. K. Haghi, Ajesh K. Zachariah, Nandakumar Kalariakkal. **"Nano materials: Synthesis, Characterization, and Applications"**. Apple Academic Press, 2013.
2. Brechignac C., Houdy P., Lahmani M. (Eds.) **"Nano materials and Nano chemistry"** (Springer,) 748p. ISBN 978-3-540-72993-8, 2007
3. Phanikumar. **"Principles of nano technology"**, Scitech Publications 2nd Edition, 2010.
4. Preetijain, Shankar Lal Garg. **"Environmental Nano technology"** Lap Lambert Academic publishing, 2015.

Course Outcomes:

After completion of the course, students will be able to:

1. Students will learn the different synthetic methods of the nano materials.
2. To know the student Electronic, optical and magnetic properties of nano materials.
3. To acquire the knowledge various instrumental methods of analysis (TEM, EDS, SEM, DLS & AFM).
4. The students can come to know the carbon nanotubes, carbon nano fibers, nano structured catalysts and nano solar cells.
5. Students will learn usage of nano materials in the purification of water.



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2020-21 Onwards (MR-20)	MALLA REDDY ENGINEERING COLLEGE (Autonomous)	B.Tech.		
Code: A0B21	POLYMER CHEMISTRY (Open Elective-3)	L	T	P
Credits: 3	(Common for CE,EEE,ME,ECE,CSE,IT and Min.E)	3	-	-

Course Objectives:

The subject provides an introduction to polymer science along with the synthesis of macromolecules by step-growth and chain-growth polymerization. Compounding of polymers and different fabrications methods are discussed. Molecular weight determination of polymers is shown using gel permeation chromatography. An overview of biodegradable and conducting polymers is also given.

Module I: Introduction to Polymer Chemistry

[10 Periods]

Definitions-Origin, Monomers and its requirements - Broad classification of polymers-types based on structure (homo & copolymers), processing (thermo plastics & thermosetting plastics) and applications. Molecular force and chemical bonding in polymers - tacticity. Determination of molecular weight (MW)-methods for number average- weight average-PDI(poly dispersity index)-effect of polymerization on PDI. Distribution and processing of polymers using Tg& Tm.

Module II: Polymerization mechanism

[10 Periods]

Chain growth Polymerization – Addition Polymerization – Reaction Mechanism - Free Radical Reaction – Ionic Reaction – Coordination Polymerization – Ring – Opening Polymerization –Condensation (step) Polymerization – Degree of Polymerization–differences between addition and step growth polymerization. Polymerization techniques -bulk, solution, suspension, emulsion-advantages and disadvantages.

Module III: Compounding of Polymers & fabrication methods

[9 Periods]

Introduction-compounding of polymers and their functions, selection of additives (by function), improving/modifying the mechanical properties. Fabrication of plastics by compression, injection, transfer, extrusion –moulding, blowing and thermoforming methods.

Module IV: Characterization techniques

[10 Periods]

Molecular mass by Gel permeation chromatography, Molecular structure by X-ray diffraction, Morphology of polymer using -Scanning Electron Microscopy, Thermal stability using Thermo gravimetric analysis (TGA).

Module V: Biodegradable polymers and conducting polymers

[9 Periods]

Biodegradable polymers, types, examples: Polyhydroxy butyrate (PHB), Poly-Hydroxybutyrate-co-β-Hydroxyvalerate (PHBV), Polyglycolic acid (PGA), Polylactic acid (PLA), Poly (ε-caprolactone) (PCL). Applications of biodegradable polymers. Conducting polymers (poly aniline and poly acetylene)-types-properties-doping-applications.



Text Books:

1. P.C.Jain and Monica Jain, "A text Book of Engineering Chemistry", DhanpatRai Publications, New Delhi, 12th Edition 2006.
2. S.S. Dara and S.S. Umare, "A Text Book of Engineering Chemistry", S Chand Publications, New Delhi, 12th Edition 2010.
3. P. C. Hiemenz and T. P. Lodge. "Polymer Chemistry", 2nd edition, CRC Press, 2007.
4. F.W. Billmeyer, "Text Book of Polymer Science", John Wiley & Sons, 4th Edition, 1996.
5. V.R. Gowariker, "Polymer Science", New Age International Publisher, 2nd Edition, 2015.

Reference Books:

1. B.Rama Devi, Ch.Venkata Ramana Reddy and Prasantha Rath, "Text Book of Engineering chemistry", Cengage Learning India Pvt.Ltd,2016.
2. Prasanth Rath, "Engineering Chemistry", Cengage Learning India Pvt.Ltd, 2015.

e- Resources:

a) Concerned Website links:

- 1) [http://hysz.nju.edu.cn/wangxl/download-polymer/Polymer%20Chemistry%20\(Carraher\).pdf](http://hysz.nju.edu.cn/wangxl/download-polymer/Polymer%20Chemistry%20(Carraher).pdf) (polymer chemistry)
- 2) <file:///C:/Users/Admin/Downloads/polymer-science-and-technology.pdf> (polymer science and technology)

b) Concerned Journals/Magazines links:

- 1) European polymer journal (Elsevier publishers)
- 2) Journal of polymer research (Springer publishers)

c) NPTEL Videos:

- 1) <http://nptel.ac.in/courses/104105039/> (Polymer chemistry)
- 2) <http://nptel.ac.in/courses/113105028/> (Polymers)

Course Outcomes:

After completion of the course, students will be able to:

1. Analyse different mechanisms of polymer formation and use this information in the synthesis of different polymers.
2. Evaluate the effect of factors such as polymer structure, molecular weight, branching and diluents on crystallinity.
3. Interpret experimental data and determine the structure of polymers by different techniques.
4. Assess the compounding of polymers & fabrication methods.
5. To know the student importance of biodegradable and conduction polymers.

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Department of chemistry

Date: 29/01/2021

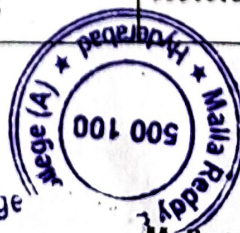
ORDER

The Board-of-Studies members Chemistry for the academic year 2020-21 have been reconstituted as some of the previous members relieved from the institute.

S. No.	Name of the Member	Designation & Official Address	Subject Specialization	Contact No.	Status
1	Dr. M. Vijaya Bhaskar Reddy	Assoc. Professor & HOD	Organic Chemistry	8297194349	Chairman- BOS
2	Dr. A. Jaya Shree	Professor of Chemistry CCST, IST, JNTUH.	Organic Chemistry	9491442444	University Nominee (Nominated by the Vice Chancellor, JNTUH, Hyderabad)
3	Dr. P. Veerasomaiah	Professor., O.U, Hyderabad.	Physical Chemistry	9247562742	Subject Expert Member (External) (Nominated by Academic Council)
4	Dr.Srinivasarao Yaragorla	Assistant Professor School of Chemistry, University of Hyderabad	Organic chemistry	9866286259	Subject Expert Member (External) (Nominated by Academic Council)
5	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd	Bio-Organic	9849601776	Industry Expert
6	Dr. Ch. Mahender	Asst. Professor	Organic Chemistry	9908127749	Faculty Member (Internal)
7	D.Venkat Ramulu	Asst. Professor	Inorganic Chemistry	8106993872	Faculty Member (Internal)
8	T. Ramesh	Asst. Professor	Organic Chemistry	9502570894	Faculty Member (Internal)
9	D. Raju	Asst. Professor	Organic Chemistry	9290700766	Faculty Member (Internal)
10	M.V.Shruthi	Asst Professor., SCETW	EEE	9951018521	Alumni Member



Ramesh
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Ramesh
Principal
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Dated: 29-01-2021

Lr.No: MREC (A)/BOS-Chemistry: 2020-21/Invite/01

To
Prof. A. Jaya Shree
Professor of Chemistry,
CCST, IST
JNTUH, Hyderabad.

Madam,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies Chemistry for the academic year 2020-21. It is scheduled on 5th February 2021 (Friday) at 11-00 AM, through online mode. We request you to make it convenient to attend the meeting.

AGENDA:

1. Discussion and review of Chemistry subjects of B.Tech. MR20 regulations course schema and syllabus.
2. Proposal/deciding the panel of examiners and valuers.
3. Any other issue with permission of the chair.



- Copy to:
1. Registrar, JNTUH
 2. P.A to the Vice-Chancellor, JNTUH
 3. Director (AAC), JNTUH.

Director

(Dr. A. Ramaswami Reddy)
DIRECTOR
Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500 100

PRINCIPAL
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(Autonomous)
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500 100



Maisammaguda, Dhulapally (Post. Via. Kompally), Medchal - Malkajgiri - 500 100.
Ph: 093481 61125, 08885542037

www.mrec.ac.in
email: principal@mrec.ac.in



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Dated: 29-01-2021

Lr.No: MREC (A)/BOS-Chemistry: 2019-20/Invite/04

To
Dr P.Sambasiva Reddy,
M.D, Xenon Biosciences,
Hyderabad.

Sir,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies Chemistry for the academic year 2020-21. It is scheduled on 5th February 2021 (Friday) at 11-00 AM, through online mode. We request you to make it convenient to attend the meeting.

AGENDA:

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Copy to:

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2. P.A to the Vice-Chancellor, JNTUH
3. Director (AAC), JNTUH.

Ramesh
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Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally

A.K.
Director

(Dr. A. Ramaswami Reddy)
DIRECTOR
Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500 100





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Dated: 29-01-2021

Lr.No: MREC (A)/BOS-Chemistry: 2019-20/Invite/02

To
Prof. P. Veerasomaiah,
Professor of Chemistry,
Osmania University,
Hyderabad.

Sir,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies Chemistry for the academic year 2020-21. It is scheduled on 5th February 2021 (Friday) at 11-00 AM, through online mode. We request you to make it convenient to attend the meeting.

AGENDA:

1. Discussion and review of Chemistry subjects of B.Tech. MR20 regulations course schema and syllabus.
2. Proposal/deciding the panel of examiners and valuers.
3. Any other issue with permission of the chair.




Copy to:

1. Registrar, JNTUH
2. P.A to the Vice-Chancellor, JNTUH
3. Director (AAC), JNTUH.




Director

(Dr. A. Ramaswami Reddy)
DIRECTOR
Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally,
(Post Via Kompally), Sec'bad-500 100


Principal
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Dated: 29-01-2021

Lr.No: MREC (A)/BOS-Chemistry: 2019-20/Invite/03

To
Dr.Srinivasarao Yaragorla,
Assistant Professor
School of Chemistry,
University of Hyderabad,
Hyderabad.

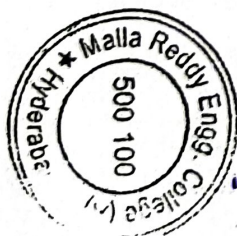
Sir,

Sub: Meeting of the Board of Studies for Chemistry for the academic year 2020-21.

It is pleasure to invite you for the meeting of the Board of Studies Chemistry for the academic year 2020-21. It is scheduled on 5th February 2021 (Friday) at 11-00 AM, through online mode. We request you to make it convenient to attend the meeting.

AGENDA:

1. Discussion and review of Chemistry subjects of B.Tech. MR20 regulations course schema and syllabus.
2. Proposal/deciding the panel of examiners and valuers.
3. Any other issue with permission of the chair.



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- Copy to:
1. Registrar, JNTUH
 2. P.A to the Vice-Chancellor, JNTUH
 3. Director (AAC), JNTUH.



Director
DIRECTOR

(Dr. A. Ramaswami Reddy)

DIRECTOR

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Department of Chemistry

Date: 29-01-2021

Pre-BOS meeting

Department of Chemistry has conducted a Pre-BOS meeting to propose and review the syllabus of Chemistry related subjects of MR20 regulations on 29-01-2021 at 11:30 AM in department of chemistry.

The following faculty Members attended the meeting.

S.No	Name of the Member	Designation	Signature
1	Dr.M.VIJAYABHASKARREDDY	Associate Professor	
2	Dr. B .SEKHAR	Assistant Professor	
3	Dr. CHEVA MAHENDER	Assistant Professor	
4	Dr.M.SAI KUMAR	Assistant Professor	
5	Dr.T.SUSMITHA	Assistant Professor	
6	Mr.RAMESH THUDI	Assistant Professor	
7	Mr.DAMARANCHA VENKAT RAMULU	Assistant Professor	
8	Mr.CH L D S NARAYANA GUPTA	Assistant Professor	
9	Mr.K.SANTHOSH	Assistant Professor	

Minutes of the meeting:

The following points are discussed in the Pre-BOS meeting

1. It is proposed to two separate papers offered to the I B.Tech students.


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2. **Engineering chemistry** and Lab proposed for circuit branches (ECE, EEE, CSE & CSE(AI, CS, DS, IOT), IT) in the I semester.
3. **Chemistry of Engineering materials** and lab proposed for non-circuit branches (CE, ME & Mining) in the II semester. The chapters will be grouped in into 5 modules in each of the theory paper.

Title of the paper	Module No	Proposed chapters
Engineering chemistry	1	Water and its treatment
	2	Electrochemistry and Battery Technology
	3	Corrosion and metal finishing
	4	Molecular structure and Theories of Bonding
	5	Nano-materials & Solar energy

Title of the paper	Module No	Proposed chapters
Chemistry of Engineering Materials	1	Water and its treatment
	2	Polymers, Adhesives and Lubricants
	3	Corrosion and metal finishing
	4	Abrasives and chemistry of building materials
	5	Fuels and Combustion


HOD-CHEMISTRY

(Dr.M.VIJAYA BHASKAR REDDY)


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Date: 05-02-2021

Department of Chemistry

Board of Studies meeting held on 05.02.2021 at 11:00 AM

The Board of Studies meeting for the Department of Chemistry is convened on 05.02.2021 at 11:00 AM in the conference hall, Malla Reddy Engineering College (Autonomous), Hyderabad.

The Agenda of the meeting is as follows.

AGENDA

1. Action Taken Report (ATR) on previous BoS Meeting in A.Y 2020-21
2. Discussion and review of Chemistry subjects of B.Tech.MR20 regulation course schema and syllabus.
3. Suggestions and review of panel for Paper setters, and examiners for examinations.
4. Delegation of power to the Chairman-BOS based on recommendations of the internal committee, for the inclusion and exclusion of any item as per requirements.
5. Approval of any other item with the permission of the Chairman.


University Nominee
(Dr. A. Jaya Shree)


Subject Expert – 1
(Dr. P. Veerasomaiah)

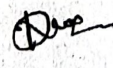
Subject Expert – 2
(Dr. Srinivasarao Yaragolla)

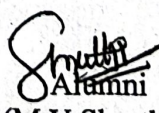
Industry Expert
(Dr. P. Samba Siva Reddy)


Member
(Dr. Ch. Mahender)



Member
(D. Venkat Ramulu)

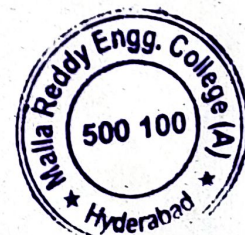

Member
(Mr. T. Ramesh)


Member
(Mr. D. Raju)


Alumni
(M. V. Shruthi)


Chairman – BOS
(Dr. M. Vijaya Bhaskar Reddy)


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Department of Chemistry

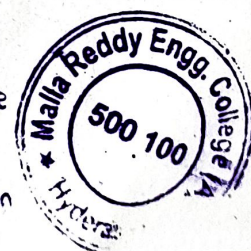
Board of Studies meeting held on 05.02.2021 at 11:00 AM

The Board of studies meeting for the Chemistry is conducted on 05-02-2021 at 11:00 AM in the conference hall, Malla Reddy Engineering College (Autonomous), through online mode by Google meet, Hyderabad

The following members have attended to review on contents such as Course Schema and Syllabus of MR20 regulations and other points as per agenda.

S.No	Name of the Member	Designation & Official Address	Category	Signature
1	Dr. M. VijayaBhaskar Reddy	Assoc. Professor & HOD	Chairman - BOS	
2	Dr. A. Jaya Shree	Professor of Chemistry, CCST, IST, JNTUH.	University Nominee	ONLINE
3	Dr. P. Veerasomaiah	Professor., O.U, Hyderabad.	Subject Expert	ONLINE
4	Dr. Y. Srinivasarao	Asst Professor., School of Chemistry, University of Hyderabad	Subject Expert	ONLINE
5	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd	Industry Nominee	ONLINE
6	Dr. C. Mahender	Asst. Professor Dept. of Chemistry	Faculty Member	
7	D.VenkatRamulu	Asst. Professor Dept. of Chemistry	Faculty Member	
8	T. Ramesh	Asst. Professor Dept. of Chemistry	Faculty Member	
9	D. Raju	Asst. Professor Dept. of Chemistry	Faculty Member	
10	M.V.Shruthi	Asst. Professor Dept. of EEE, SCETW	Alumni	

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Minutes of Meeting Chemistry BOS

5th February, 2021

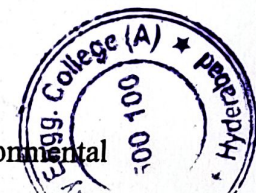
The Board of studies meeting for the Chemistry is conducted on 05-02-2021 at 11:00 AM in the conference hall, Malla Reddy Engineering College (Autonomous), through online mode by Google meet, Hyderabad

The following BOS Members have attended the Meeting:

S. No	Name of the Member	Designation & Official Address	Category
1	Dr. M. VijayaBhaskar Reddy	Assoc. Prof. & HOD, Department of Chemistry, MREC(A)	Chairman - BOS
2	Dr. A. Jaya Shree	Professor of Chemistry, CCST, IST, JNTUH.	University Nominee
3	Dr. P. Veerasomaiah	Professor of Chemistry, O.U, Hyderabad.	Subject Expert (outside the Parent University)
4	Dr. Srinivasarao Yaragorla	Assistant Professor School of Chemistry, University of Hyderabad	Subject Expert (outside the Parent University)
5	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd.	Industry Expert
6	Dr. Ch. Mahender	Asst. Prof., MREC(A)	Faculty Member
7	Mr. D. Venkat Ramulu	Asst. Prof., MREC(A)	Faculty Member
8	Mr. T. Ramesh	Asst. Prof., MREC(A)	Faculty Member
9	D. Raju	Asst. Prof., MREC(A)	Faculty Member
10	M.V. Shruthi	Asst. Prof., SCETW	Alumni

The following is the agenda of the meeting:

1. Discussion and review of syllabus of Chemistry subject, open electives and Environmental science of B. Tech. MR20 regulations.
2. Suggestions and review of panel for Paper setters, and examiners for examinations.
3. Delegation of power to the Chairman-BOS based on recommendations of Engineering College committee, for the inclusion and exclusion of any item as per requirements.



R. Srinivasulu
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Sec 'bad' 500 100
Post Via

4. Approval of any other item with the permission of the Chairman.

At the outset, Dr. M. Vijaya Bhaskar Reddy, HOD and Chairman of the Chemistry - Board of Studies, welcomed the members to the BOS meeting and informed the purpose of the meeting. He also briefed about the previous BOS meeting resolutions and placed on record the existing syllabus of MR20 regulations and also proposed modifications in the syllabus. Later Board of studies Members have in detailed discussion, reviewed each item of the proposed agenda and finally the following items have been resolved unanimously by all the members of BOS.

The following resolutions are made after careful discussion regarding the observations to be implemented in the next Regulations.

1. BOS members suggested to introduce electro dialysis in module I of engineering chemistry.
2. Proposed two separate syllabus for circuit and non-circuit branches.
3. Suggestion of introducing Break-point chlorination in module-I (Water and its treatment).
4. Suggestion of introducing the concept of paints and its constituents in corrosion of module-III.
5. Suggestion of introducing the topics Bergius Process & theoretical calculation of Calorific Value by Dulong's Formula in module-V Fuels and Combustion.
6. Suggestion of Module-IV (stereochemistry, reaction mechanism & synthesis of drugs) totally replace with "Nano-materials & Solar energy"
7. In engineering chemistry lab experiment no 3 title has been changed to "Estimation of an acid by P^H metry".
8. Suggestion of introducing types of ecosystems like forest ecosystem, grass land ecosystem, desert ecosystem etc.
9. Suggestion of introducing two or three biogeochemical cycles.
10. No changes were made in Polymer chemistry open elective.


Chairman - BOS

(Dr. M. Vijaya Bhaskar Reddy)


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Koraput





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Department of Chemistry

Board of Studies meeting held on 05.02.2021 at 11:00 AM

The Board of Studies meeting for the Department of Chemistry is convened on **05.02.2021 at 11:00 AM** through online mode by Google meet in the conference hall, Malla Reddy Engineering College (Autonomous), Hyderabad

Action Taken Report (ATR) on previous BoS Meeting in AY 2020-21

The previous Board of studies meeting in AY 2020-21 was held on dt: 16th July 2020. The following are the resolutions made in the meeting and corresponding action taken are as follows.

Resolution 1: Proposed separate chemistry papers for circuit and non-circuit branches but JNTUH nominee and other subject experts suggested to frame one common paper for all branches.

Action Taken: Committee opposed separate chemistry paper for circuit and non-circuit branches and suggested to prepare common syllabus for all branches.

Resolution 2: CSE & IT departments proposed to remove chemistry course for them.

Action Taken: JNTUH nominee and other subject experts opposed to remove chemistry course for CSE and IT branches.

Resolution 3: BOS members suggested to remove quinhydrone electrode from module III of engineering chemistry syllabus.

Action Taken: Implemented in MR20 regulations syllabus from 2020-21 onwards.

Resolution 4: BOS members suggested to remove coupling constant from module IV of engineering chemistry syllabus.

Action Taken: Removed "coupling constant" from module-III in the engineering chemistry syllabus.

Resolution 5: In Engineering Chemistry, module-II (Molecular structure & Theories of Bonding)

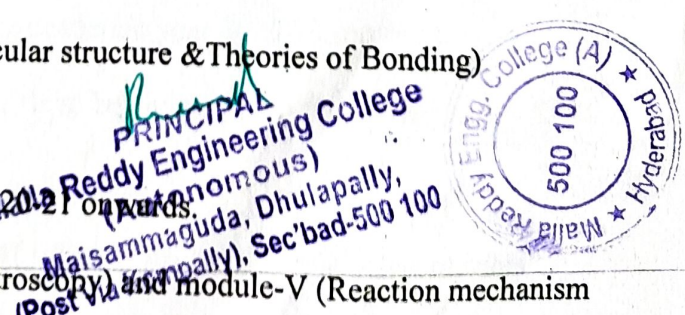
$[\text{Ni}(\text{CN})_4]^{2-}$ is replaced with $[\text{Ni}(\text{CO})_4]$.

Action Taken: Implemented in MR20 regulations from 2020-21 onwards.

Resolution 6: Module-IV (Stereochemistry and NMR spectroscopy) and module-V (Reaction mechanism

& synthesis of drug molecules) are merged and studied under module-IV and entitled as

"Stereochemistry, Reaction mechanism & synthesis of drug molecules and NMR spectroscopy"



Action Taken: Committee approved to merge the **module-IV & V** including title and it is being implemented from the academic year 2020-21 as **"Stereochemistry, Reaction mechanism & synthesis of drug molecules and NMR spectroscopy"**.

Resolution 7: The following topics are removed from Module-IV (i) synthesis of nylon-6 (ii) addition reactions (iii) Coupling constant.

Action Taken: Implemented in MR20 regulations from 2020-21 onwards.

Resolution 8: BOS members suggested to replace synthesis of ibuprofen with aspirin in Module-IV.

Action Taken: Committee approved to replace synthesis of ibuprofen with aspirin in Module-IV and it is being implemented from the academic year 2020-21.

Resolution 9: New Module **"Fuels and combustion"** is introduced as module-V.

Action Taken: Implemented in MR20 regulations 2020-21 onwards.

Resolution 10: In engineering chemistry lab experiment no 3 title has been changed to **"Estimation of an acid by P^H metry"**.

Action Taken: The title of experiment no 3 in chemistry lab has been changed to **"Estimation of an acid by P^H metry"** and it is being implemented from the academic year 2020-21.

Resolution 11: In Environmental Science the title of module -V has been changed to **Sustainable Development**.

Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards

Resolution 12: Open Elective **"Chemistry of Engineering Materials"** was replaced with new open elective entitled as **"Chemistry in daily life"**.

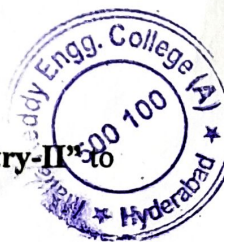
Action Taken: Committee approved to replace the **"Chemistry of Engineering Materials"** with **"Chemistry in daily life"** and it is being implemented from the academic year 2020-21.

Resolution 13: In nano chemistry open elective module-I, title to be change from **"Nanochemistry-I"** to **"Synthesis of Nano materials"**

Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards

Resolution 14: In nano chemistry open elective module-II, title to be change from **"Nanochemistry-II"** to **"Properties of nano materials"**.

Action Taken: Committee approved to change the **module-II** title as **"Properties of nano materials"** and it is being implemented from the academic year 2020-21.



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Resolution 15: In nano chemistry open elective module-II, "luminescence" and "fluorescence" has to be removed.

Action Taken: The above mentioned topics removed from module-II and it is being implemented from the academic year 2020-21.

Resolution 16: In nano chemistry open elective module II, Quantum dot has to be removed.

Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards.

Resolution 17: In nano chemistry module-III, suggested to add Principle and block diagram for SEM, EDS TEM, DLS and AFM.

Action Taken: The proposed topics are included in the syllabus and it is being implemented from the academic year 2020-21.

Resolution 18: In nano chemistry open elective module-IV, title to be change from "Carbon nano tubes and applications" to "Carbon nano structures and applications".


Action Taken: Committee approved to change the module-IV title as "Carbon nano structures and applications" and it is being implemented from the academic year 2020-21.

Resolution 19: In nano chemistry open elective module-IV, (Carbon nano structures and applications) all the contents are reshuffled as "carbon nano structures, carbon clusters, types and preparation of carbon nano tubes-optical and telecommunication applications, nano structured crystals (graphite), graphene, carbon fibers, fullerenes and their applications". Nano solar cells and its applications for the continuity.


Action Taken: Implementing in MR20 regulations from the academic year 2020-21 onwards.

Resolution 20: No changes are made in Polymer chemistry open elective.

Action Taken: Implementing without changes in the open elective "Polymerchemistry".


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Chairman - BOS
(Dr. M. Vijaya Bhaskar Reddy)



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Maisammaguda (H), Medchal- Malkajgiri District, Telangana State - 500100

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2	Dr. A. Jaya Shree	Professor of Chemistry, CCST, IST, JNTUH.	Organic Chemistry	9491442444	jayashree@jntuh.ac.in	University Nominee
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4	Dr. Srinivasarao Yaragorla	Assistant Professor School of Chemistry, University of Hyderabad	Organic Chemistry	9866286259	Srinivas.yaragorla@uohyd.ac.in	Subject Expert Member (Outside the parent University)
5	Dr. P. Samba Siva Reddy	M.D, Alta Vista Phyto Chemicals Pvt Ltd, Hyd.	Bio-Organic	9849601776	xenonbiosciences@gmail.com	Industry Expert
6	Dr. C. Mahender	Asst. Prof., MREC(A)	Organic Chemistry	9908127749	mahendercheva@gmail.com	Faculty (Member)
7	Mr. D. Venkat Ramulu	Asst. Prof., MREC(A)	Inorganic Chemistry	8106993872	rvenkat1822@gmail.com	Faculty (Member)
8	Mr. T. Ramesh	Asst. Prof., MREC(A)	Organic Chemistry	9502570894	thudirams@gmail.com	Faculty (Member)
9	D. Raju	Asst. Prof., MREC(A)	Organic Chemistry	9290700766	raajdhk4u@gmail.com	Faculty (Member)
10	M.V. Shruthi	Asst. Prof., SCETW	Power Electronics	7057582545	venkatashruthi@stanley.edu.in	Alumni (MR15)

R. Venkata
PRINCIPAL

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M. B. Reddy
Chairman - BOS



Chemistry HOD <chehod@mrec.ac.in>

UPDATED chemistry department review of syllabus in BOS 2020-21

Jaya shree <jayashree@jntuh.ac.in>
To: Chemistry HOD <chehod@mrec.ac.in>

Mon, Feb 1, 2021 at 7:29 PM

Dear Sir,

In response to your meeting request that you sent earlier about board of studies meeting held on 05-02-2021, I want to inform you that I will be glad to meet with you and to discuss in details of review syllabus. We shall meet 5th February (Friday) at 11:00 AM as suggested.


Regards

Prof. A. Jaya Shree, FTAS., FRSC.

Professor of Chemistry

HEAD, Centre for Chemical Sciences and Technology, Institute of Science and Technology, Jawaharlal Nehru Technological University Hyderabad, 500085, INDIA

mobile 9491442444,
email: jayashree@jntuh.ac.in


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Chemistry HOD <chehod@mrec.ac.in>

UPDATED chemistry department review of syllabus in BOS 2020-21

Sambasiva Reddy Poreddy <xenonbiosciences@gmail.com>

To: Chemistry HOD <chehod@mrec.ac.in>

Tue, Feb 2nd, 2021 at 10:20


PMDear Dr. Vijaya Bhaskar Reddy

I have received the Board of studies meeting request that you sent on 29-01-2021. I am interested to meet with you and discuss the review of syllabus.

Thank you
with Regards
Sambasiva Reddy

Dr. Sambasiva R Poreddy
Xenon Biosciences
Plot No: 22-B, Road # 2
Venkataramana Colony, Vanasthalipuram
Hyderabad-500070, India
Phone: +91-9849601776
www.xenonbio.com
www.withaferina.com

On Mon, Oct 19, 2020 at 2:44 PM Chemistry HOD <chehod@mrec.ac.in> wrote:
[Quoted text hidden]


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Chemistry HOD <chehod@mrec.ac.in>

Accepted: MREC(A) Chemistry BOS Meeting @ Friday Feb 05, 2021 11:00am - 4:15pm(IST) (chehod@mrec.ac.in)

srinivas.yaragorla@uohyd.ac.in <srinivas.yaragorla@uohyd.ac.in>
PMReply-To: srinivas.yaragorla@uohyd.ac.in
To: chehod@mrec.ac.in

Thu, Feb 04, 2021 at 12:42

srinivas.yaragorla@uohyd.ac.in has accepted this invitation.

MREC(A) Chemistry BOS Meeting

When Fri Feb 05, 2021 11:00am – 4:15pm India Standard Time - Kolkata

Joining info Join with Google Meet

meet.google.com/yqj-kzsz-hsy

Join by phone

+1 513-818-0801 (PIN: 841269779)

Calendar chehod@mrec.ac.in

Who


- chehod@mrec.ac.in - organizer
- suneel24b@gmail.com
- vijaybreddy123@gmail.com
- vs_puppala@rediffmail.com
- jayashreeanireddy@gmail.com
- lalnarayana.gupta@gmail.com
- raajdhk4u@gmail.com
- mahendercheva@gmail.com
- rvenkat1822@gmail.com
- srinivas.yaragorla@uohyd.ac.in
- avpchem@gmail.com
- thudirams@gmail.com

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