



LECHEMNEWS

• IMPACTS OF ACCREDITATION

The purpose and impact of accreditation goes far beyond quality assurance of an Institution and its programs. Major impacts of accreditation system are summarized below:

- **Encourages quality improvement initiatives by Institutions**
Improves student enrollment both in terms of quality and quantity.
- **Helps the Institution in securing necessary funds.**
- **Enhances employability of graduates.**

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EDITORIAL TEAM

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- *Facilitates transnational recognition of degrees and mobility of graduates and professionals.*

- *Motivates faculty participate actively in academic and related Institutional / departmental activities.*

- *Helps create a sound and challenging academic environment in the Institution, and Contributes to social and economic development of the country by producing high quality technical manpower.*

MESSAGE FROM PRINCIPAL'S DESK

Dear students and faculty members, it's a matter of great pleasure, that Chemical Engineering Department is going to publish the third newsletter of their department.

Chemical Engineering Department is preparing for NBA Accreditation. SAR for the same already submitted. With this we can assure to produce quality engineers as per the demand of industries and society.



*With best wishes
Dr. S.N. Pandya*

INSTITUTE VISION & MISSION

VISION

To provide quality engineering education and transforming students into professionally competent and socially responsible human beings.

MISSION

- 1. To provide a platform for basic and advanced engineering knowledge to meet global challenges.*
- 2. To impart state-of-art know-how with managerial and technical skills.*
- 3. To create a sustainable society through ethical and accountable engineering practices.*

MESSAGE FROM HOD'S DESK

Greetings. In this post COVID times, hope you may find this e-copy of "LEC CHEM-NEWS" in best of your health. It is an immense pleasure to publish this third news letter of Chemical Engineering Department, L.E. College, Morbi.

NBA Accreditation is a very important for all academic programs and institutions. Chemical Engineering Department is preparing for NBA Accreditation. And SAR for the same already submitted. With the support of all stake holders, we are hopeful to get status of NBA accreditation in short time.

E-copy of this issue will be circulated to all our alumni/alumnae and other stake holders. I Hope everyone may like this. All stake holders of the department can give their feedback and suggestions for further improvement in our efforts and for better output.



Regards,

Dr. R. K. Mewada

DEPARTMENT VISION & MISSION

VISION

To develop professionally competent & socially responsible chemical engineers by providing quality education.

MISSION

- 1. To provide sound basic engineering knowledge to have a successful career in a professional environment.*
- 2. To develop skill sets among the students to make them professionally competent.*
- 3. To cater ethically strong engineers who shall be able to improve the quality of life and to work for sustainable development of society.*

PROGRAM OUTCOMES (PO'S)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiment, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society :** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM EDUCATIONAL OUTCOMES (PEO'S)

- PEO-1 To impart knowledge and skills in students to make them professionally competent in chemical process industries.
- PEO-2 To motivate students for higher studies in technical and management fields.
- PEO-3 To prepare students having soft skills along with leadership quality and management ability to make them successful entrepreneurs.
- PEO-4 To implant the ethical principle and norms of engineering practices in terms of health, safety, and environmental context for the sustainable development of society



PROGRAM SPECIFIC OUTCOMES (PSO'S)

- 1) Apply the knowledge of chemical engineering to accomplish the contemporary need of chemical & Allied Industries.
 - 2) To execute the chemical engineering principle and modern engineering tools to design system by considering safety, cost, health, legal, cultural and environmental aspects.
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Training Accomplished by Faculty

Sr.no.	Name of faculty	Title of program	Organized by	Date
1.	Dr. Shital Amin	Research for sustainable progress	AICTE-ISTE	12/16/2021 – 12/22/2021



Paper published by Faculty

Sr.no.	Name of faculty	Title of paper	Journal name	ISSN/ISBN/DOI no. of journal	Publishing year
1.	Dr.R.K.Mewada	Photocatalytic decolouration, degradation and disinfection capability of Ag ₂ CO ₃ /ZnO in natural sunlight	Journal of the Indian Chemical Society	0019-4522	2022 (Published online on Dec 2021)
2.	Dr. Shital Amin	Harnessing Graphene-based nanosheets as an additive for coatings		International conference	13-15 December

Expert Lecture delivered by Faculty

Sr.no.	Name of faculty	Title of program	Name of Institute	Date
1.	Dr. Shital Amin	Process Design of Batch Reactor Using Multi-Objective Optimization or Synthesis of Butylated Urea Formaldehyde Resins	GEC Valsad	2/24/2022

Training Accomplished by Students

Sr.no.	Name of student	Title of program	Organized by	Date
1.	Dipak Nakum Ratanbhai	Safety management	MAPS Laboratories pvt.ltd	1/9/2022 – 4/9/2022



RESULT ANALYSIS



The Academic Result of all the semesters of Chemical Engineering Department for the academic year 2020-21 can be summarized as follows:

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students obtained FF grade (Fail)	Overall result of course (%)
1	II	3110002 English	64	0	100
2	II	3110004 Basic Civil Engineering	64	0	100
3	II	3110007 Environmental Science	64	0	100
4	II	3110012 Workshop	64	2	96.87
5	II	3110013 Engineering graphics and Design	64	1	98.44
6	II	3110015 Maths-II	64	0	100

SEMESTER-II

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students obtained FF grade (Fail)	Overall result of course (%)
1	IV	3140005 Design Engineering 1 B	82	0	100
2	IV	3140503 Heat Transfer	82	3	96.34
3	IV	3140507 Chemical Engineering Thermodynamics-II	82	0	100
4	IV	3140508 Unit Processes & Chemical Technology	82	0	100
5	IV	3140509 Pollution control & safety Management	82	0	100
6	IV	3140510 Numerical Methods in Chemical Engineering	82	3	96.34

SEMESTER-IV

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students obtained FF grade (Fail)	Overall result of course (%)
1	VI	2160001 Design Engineering – II B	61	5	91.8
2	VI	3160501 Mass Transfer Operation-II	61	6	90.16
3	VI	3160506 Chemical Reaction Engineering – I	61	4	93.44
4	VI	3160507 Advanced Separation Techniques (Dept. Ele.)	61	1	98.36
5	VI	3160510 Petroleum Refining & Petrochemicals	61	5	91.8
6	VI	3160513 Waste Water Engineering	32	0	100
7	VI	3160515 Solid Waste Management	29	1	98.36
8	VI	3160002 Contributor Personality Development Program	52	2	96.72

SEMESTER-VI

Sr. No.	Semester	Full Name of the Subject with Subject Code	Total No. of students appeared in exam	No. of students obtained FF grade (Fail)	Overall result of course (%)
1	VIII	2180502 Petroleum Refining and PetroChemicals	54	0	100
2	VIII	2180503 Process Modeling, Simulation & optimization	54	0	100
3	VIII	2180504 Project - II	54	0	100
4	VIII	2180505 Multi Component Distillation (dept. Ele.)	54	1	98.1
5	VIII	2180507 Transport Phenomena	54	0	100

SEMESTER-VIII