



Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology,
Ashta, Dist: Sangli
(An Empowered Autonomous Institute affiliated to Shivaji University, Kolhapur)



Department of Basic Sciences

List of Board of Studies Members (as per UGC Regulations)

Sr. No.	Name of Expert	Designation	Institute/University/Organization
8.	Dr. S. S. Mohite	Chairman (HoD)	ADCET, Ashta
9.	Dr. K. N. Alsundkar	Expert VC-Nominee	Government College of Engineering, Karad
10.	Dr. A. A. Bagade	Academic Expert-1	Rajarambapu Institute of Technology (RIT), Sakharale
11.	Dr. H. P. Salunkhe	Academic Expert-2	School of Engineering and Technology, Shivaji University, Kolhapur
12.	Dr. M. B. Shinde	Academic Expert-3	KIT's College of Engineering, Kolhapur
13.	Dr. T. V. Kolekar	Industry Representative	Managing Director, Eco Green Agro Sciences Pvt. Ltd.
14.	All Faculty members of the department	Member	ADCET, Ashta


Chairman, Board of Studies
Department of Basic Sciences




Chairman, Academic Council
ADCET, Ashta



Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and Technology,
Ashta



(An Empowered Autonomous Institute affiliated to Shivaji University, Kolhapur)
Department of Basic Sciences

CIRCULAR

Date: 25/07/2025

All BOS members of Department of Basic Sciences are hereby informed that, 6th meeting of BOS is arranged on Friday, 1st August 2025, regarding 3rd revision drafted of curriculum of Applied Mathematics I and II, Physics, Chemistry, Professional Communication skills and Liberal learning courses for all the programmes

Hereby request you to attend the meeting in Basic sciences department tutorial hall at 10.30 am.

Sr. No.	Name of Member	Sign
1	Dr. Santosh Shankar Mohite	
2	Mr. Chetankumar Vasantrao Suryawanshi	
3	Mrs. Savita Santosh Mohite	
4	Mr. Pravin Siddheshwar Gore	
5	Ms. Jyoti Sadashiv Kurade	
6	Mr. Laxman Shamrao Sawant	
7	Mrs. Surekha. Deepak Mane	
8	Mr. Rahul Bhimrao Deshmukh	
9	Mrs. Vijayalaxmi Maruti Vairat	
10	Mr. Ziyauddin Dastgir Sande	
11	Mr. Audumbar Gangaram Shinde	
12	Mr. Aniket Ashok Patil	
13	Dr. Shekhar Balkrishna Mali	
14	Mr. Maulaali Rasulbhai Mulla	
15	Dr. Santosh Shankar Desai	
16	Dr. Kedar Sharad Joshi	
17	Dr. Shilpa Shashikant Devkule	
18	Dr. Raturaj Ramchandra Kuldeep	
19	Dr. Praadnya Gulabrao Raje	
20	Mr. Kapil MadhavLalit	

Head

Department of Basic Sciences

Agenda for the 6th Board of Studies Meeting – Department of Basic Sciences

Date: August 01st, 2025

1. Welcome to BOS Members

2. Review of Previous Meeting Minutes: Discussion on points from the last Board of Studies meeting.

3. First-Year Engineering Course Categories: Discussion on different course categories for the first year of engineering programs.

4. Third Revision Curriculum Structure: Discussion on the third revision of the curriculum structure for all academic programs.

5. Finalization of Revised First-Year Curriculum: Discussion and finalization of the revised curriculum for the following subjects across all programs:

* Applied Mathematics I and II

* Physics

* Chemistry

* Professional Communication

* Liberal Courses

6. Mode of Assessment for ISE Activity: Discussion on the mode of assessment for In-Semester Evaluation (ISE) activities for all programs.

7. Question Paper Format (MSE & ESE): Discussion on the nature and format of question papers for Mid-Semester Examination (MSE) and End-Semester Examination (ESE).

8. Any Other Points: Any other points for discussion with the permission of the chairperson.


Prof. Mrs. S. S. Mohite
(Secretary)




Dr. S. S. Mohite
(HOD - Basic Sciences)

6th Board of Studies Meeting

BoS Meeting is conducted for 3rd curriculum revision for all the programmes on 01/08/2025 at 10.30.am in the presence of

1. Dr. Amit A Bagade (University Representative)
2. Dr. Krishna Namdev Alsundkar (Academic expert)
3. Dr. Hanmant P. Salunkhe (Academic expert)
4. Dr. Mahesh Balasaheb Shinde (Academic expert) (online)
5. Curriculum of following courses were discussed in detail
 1. Applied Mathematics I
 2. Applied Mathematics II
 3. Applied Physics
 4. Applied Chemistry
 5. Professional Communication skills
 6. Liberal courses
 7. Indian knowledge system
 8. Biology for engineers.

Course Name: Applied Mathematics I

Sr. No	Program	Course Code	Suggestion / Improvements
1	Electrical	3EEBS101	• Unit-1: Add Normal form of matrix as it is required for coding and decoding, signal and image processing • Unit-3: i) Replace trigonometric functions with circular functions under hyperbolic functions for accuracy. iii) Include analytic functions and Cauchy-Riemann (CR) equations, as they are important for GATE and further studies. iii) Remove basic complex number content, as it is already covered in 11th and 12th standard. • Electrical: What 2 represents in structure under the column S.
	Civil	3CVBS101	
	Aeronautical	3AEBS101	
	AIDS	2ADBS101	
	CSE (IoT & CS)	2ICBS101	
	Robotics	0RABS101	
	Food	2FTBS101	

2	Food	2FTBS101	Modify some content by considering the background of Biology (PCB) students. Instead of partial differentiation add some basics of differentiation and integration to strengthen their foundational understanding
3	CSE	3CSBS101	Unit 5: Mention specific methods for solving definite and indefinite integrals to provide clarity and structure in teaching and assessment. Unit 6: Include analytic functions and Cauchy-Riemann (CR) equations, as they are important for GATE and further studies.
4	Mech	3MEBS101	The Semester I syllabus of Applied Mathematics is overloaded, with 8–9 major topics, including some topics from higher semester. This imposes an undue burden on first-year students who are still adapting to engineering education. - Reduce and streamline the Semester I content to match the students' academic level. - Shift advanced topics back to higher semesters. - If no separate Mathematics course is available in higher semester, ask respective engineering departments to embed essential mathematical concepts into their subject syllabi.

Course Name: Applied Mathematics II

Sr.No	Program	Course Code	Suggestion / Improvements
1	Mechanical	3MEBS109	Unit-1: The current title of Unit-1 lacks clarity. It is recommended to rename the unit title as “Linear Differential Equation of order n with Constant Coefficient”. Unit-1 included theory and applications of LDE. Covering both aspects effectively within 8 hours is not practical. Hence, it is strongly recommended to split Unit-1 into two separate units.

			• Unit 5: The current Unit-5 includes two major topics special functions and multiple integrals. Both are conceptually rich and require adequate instructional time. Covering both these topics within the limited 8 hour duration is not feasible. Therefore, it is recommended to split Unit-5 into two separate units • Unit-6: Remove the word Application from unit title.
2	CSE	3CSBS109	• Change the order of units by placing differentiation and differential equations first, followed by other calculus for better flow and understanding • Interchange the unit on Vector Space from Sem-II with Numerical Solution of Algebraic and Transcendental Equations or interchange Complex Numbers of Sem-I with Partial Differentiation and its Applications from to balance difficulty level and ensure better continuity in learning.
3	Food	2FTBS110	• Modify some content by considering the background of Biology (PCB) students. • As the course includes topics from Statistics and numerical methods, the title Applied Mathematics-II does not reflect the content accurately. It is recommended to change the title to something more appropriate such as Engineering Mathematics-II. • Unit 6: Along with Newton's forward and backward methods for equally spaced values, add a method like Lagrange's or Divided Difference for unequally spaced values to complete the content.
3	Civil / Aeronautical / Electrical	3CVBS111 3AEBS109 3EEBS109	• Modify the proper and improper integrals part or add a brief introduction to special functions to enhance the relevance and completeness of the topic.
4	AIDS / CSE (IoT) / Robotics	2ADBS110 2ICBS109 0RABS109	• Change the title of Unit 5 from Finite Differences and Interpolation to Interpolation for better clarity and focus.

General Suggestions / Recommendations

Sr.No	Suggestions / Recommendations
1	The Course title should reflect the actual content of course. It is recommended to use Engineering Mathematics-I/II instead of Applied Mathematics-I/ II
2	The mention of "2" under Self Study for Electrical, AIDS, Robotics, and Food programs is unclear. It should be specified whether this involves classroom hours, affects faculty workload, or requires student presence. Clear guidelines are needed.
3	Under useful links, mention the official NPTEL course link instead of YouTube video link of the NPTEL course.
4	The editions of the listed reference and text books should be updated to recent editions. Also, consider adding new books by reputed authors that align with the current syllabus and recent developments in the subject.
5	Offer the Numerical Methods course as an Open Elective wherever required, so that students from other branches can opt for it based on their program needs and interests.
6	In the Pre-requisites section, clearly mention that the use of a non-programmable calculator is allowed during the course and examinations.

Suggestions/ Recommendations for Tutorials and ISE Activity

Sr.No	Suggestions / Recommendations
1	Plan the tutorials according to a 15-week schedule, aligning with the academic calendar.
2	Prepare a list of 12 – 15 tutorials covering all units of the syllabus with approximately equal weightage across topics. Ensure that at least 10 tutorials are conducted during the semester, covering content from each unit to maintain balanced practice and assessment.
3	Use tools like MATLAB, SCILAB, GeoGebra, and Excel in tutorials for practical understanding and better visualization of concepts.
4	Include ISE activities such as Seminar and Mathematical Modeling wherever relevant, to promote deeper understanding, enhance presentation skills, and encourage real-life application of mathematical concepts.
5	Suggestion: Introduce basic mathematics-related software such as MATLAB, SCILAB, GeoGebra, or Excel in the syllabus to help students develop computational skills and apply mathematical concepts in practical scenarios.

Suggestions/ Recommendations for Question Paper

Sr.No	Suggestions / Recommendations																		
1	In the current format, students may observe that they can skip one topic in both MSE and ESE and still score well. To address this, modify the question paper pattern so that skipping any one topic will impact performance. This encourages comprehensive learning of the entire syllabus. <table><tr><td>Q. 1</td><td>Attempt the following</td><td>Marks</td></tr><tr><td>a)</td><td>Unit-1 /2/3</td><td>5</td></tr><tr><td>b)</td><td>Unit -2/3/1</td><td>5</td></tr><tr><td>c)</td><td>Unit-3/1/2</td><td>5</td></tr><tr><td></td><td>OR</td><td></td></tr><tr><td>c)</td><td>Unit-3/1/2</td><td>5</td></tr></table>	Q. 1	Attempt the following	Marks	a)	Unit-1 /2/3	5	b)	Unit -2/3/1	5	c)	Unit-3/1/2	5		OR		c)	Unit-3/1/2	5
Q. 1	Attempt the following	Marks																	
a)	Unit-1 /2/3	5																	
b)	Unit -2/3/1	5																	
c)	Unit-3/1/2	5																	
	OR																		
c)	Unit-3/1/2	5																	

Course Name: Physics

Program- Mechanical Engineering

Course: Applied Physics

Course Code-3MEBS110

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalized and also made few changes in curriculum ,
 - ❖ Unit- I- Interference, diffraction and polarization – Remove interference in thin film, diffraction at multiple slits and optical activity.
 - ❖ Unit- II- Laser no change
 - ❖ Unit-III- Acoustics and ultrasonic- Sabine formula- No derivation, Add – Magnetostriction oscillator
 - ❖ Unit IV- Crystallography- Add- Symmetry in cubic crystal, Remove- Applications of X-ray diffraction.
 - ❖ Unit-V- Introduction to material – Add- Semiconductor, its types and applications, Remove- Structure of crystalline solids.
 - ❖ Unit- VI- Nanophysics- No change
 - ❖ Laboratory- 1. Replace three experiments i.e. a. Double refraction b. R. P. of grating c. seven crystal system by a. Hall effect b. B. H. curve tracer and c. Determination of miller indices.
 - ❖ Reference book- Add 1. Nano technology by Sulbha Kulkarni, Remove- 01 Solid state physics.

Program- Aeronautical Engineering

Course: Applied Physics

Course Code-3AEBS102

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Interference, diffraction and polarization – Remove interference in thin film, diffraction at multiple slits and optical activity.
 - ❖ Unit- II- Laser no change
 - ❖ Unit-III- Acoustics and ultrasonic- Sabine formula- No derivation, Add – Magnetostriction oscillator

- ❖ Unit IV- Crystallography- Add- Symmetry in cubic crystal, Remove- Applications of X-ray diffraction.
- ❖ Unit-V- Introduction to material – Add- Semiconductor, its types and applications, Remove- Structure of crystalline solids.
- ❖ Unit- VI- Nanophysics- No change
- ❖ Laboratory- 1. Replace three experiments i.e. a. Double refraction b. R. P. of grating c. seven crystal system by a. Hall effect b. B. H. curve tracer and c. Determination of miller indices.
- ❖ Reference book- Add 1. Nano technology by Sulbha Kulkarni, Remove- 01 Solid state physics.

Program- Food technology

Course: Applied Physics

Course Code-2FTBS111

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Interference, diffraction and polarization – Remove interference in thin film, diffraction at multiple slits and optical activity.
 - ❖ Unit- II- Laser no change
 - ❖ Unit-III- Acoustics and ultrasonic- Sabine formula- No derivation, Add – Magnetostriction oscillator
 - ❖ Unit IV- Crystallography- Add- Symmetry in cubic crystal, Remove- Applications of X-ray diffraction.
 - ❖ Unit-V- Introduction to material – Add- Semiconductor, its types and applications, Remove- Structure of crystalline solids.
 - ❖ Unit- VI- Nanophysics- No change
 - ❖ Laboratory- 1. Replace three experiments i.e. a. Double refraction b. R. P. of grating c. seven crystal system by
 - a. Hall Effect
 - b. B. H. curve tracer and
 - c. Determination of miller indices.
 - ❖ Reference book- Add 1. Nano technology by Sulbha Kulkarni, Remove- 01 Solid state physics.

Program- Electrical Engineering
Course: Applied Physics **Course Code-3EEBS102**

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Diffraction and polarization – 01. Remove diffraction at multiple slits and 02. Optical activity.
 - ❖ Unit- II- Laser and Fiber Optics- No change
 - ❖ Unit-III- Acoustics and ultrasonic- 01. Sabine formula- No derivation, 02. Add – Magnetostriction oscillator.
 - ❖ Unit IV- Crystallography- 01. Add- Symmetry in cubic crystal, 02. Remove- Applications of X-ray diffraction.
 - ❖ Unit-V- 01. Rearrange points in Semiconductor, 02. Add soft and hard material, 03. Hysteresis effect, domain theory.
 - ❖ Unit- VI- No change
 - ❖ Laboratory- 01. Replace list of three experiments a. Double refraction b. R. P. of grating c. seven crystal system by a. Hall Effect b. B. H. curve tracer and c. Determination of miller indices.
 - ❖ Reference book- 01. Add Nano technology by Sulbha Kulkarni, 02. Remove- Solid state physics.

Program- Artificial Intelligence and Data Science
Course: Engineering Physics **Course Code-2ADBS111**

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Diffraction and polarization – Remove- 01. Diffraction at multiple slits and 02. Optical activity.
 - ❖ Unit- II- Laser and Fiber Optics- No change
 - ❖ Unit-III- Nanophysics- No change
 - ❖ Reference book- 01. Add Nano technology by Sulbha Kulkarni.

Program- Internet of Things and Cyber Security including Blockchain Technology

Course: Applied Physics

Course Code-2ICBS111

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Diffraction and polarization – Remove- 01. Diffraction at multiple slits and 02. Optical activity.
 - ❖ Unit- II- Laser and Fiber Optics- No change
 - ❖ Unit-III- Nanophysics- No change
 - ❖ Reference book- 01. Add Nano technology by Sulbha Kulkarni.

Program-Artificial Intelligence and Robotics

Course: Physics

Course Code-0RABS110

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Diffraction and polarization – Remove- 01. Diffraction at multiple slits and 02. Optical activity.
 - ❖ Unit- II- Laser and Fiber Optics- No change
 - ❖ Unit-III- Nanophysics- No change
 - ❖ Reference book- 01. Add Nano technology by Sulbha Kulkarni.

Program- Computer Science and Engineering

Course: Applied Physics

Course Code-3CSBS102

The following points were discussed in BoS meeting of Applied Physics

- First we discussed about the teaching scheme and the credits given to Applied Physics
- In this discussion the curriculum is finalised and also made few changes in curriculum ,
 - ❖ Unit- I- Laser - No change
 - ❖ Unit-II- Nanophysics- No change
 - ❖ Unit-III- Quantum – Add 01. Compton Effect, 02. Davision-Germer Experiment, 03. Properties of wave function, 04. Matter wave and its properties. Remove- 01. Quantum Tunnelling, 02. Quantum Entanglement.

Course Name: Chemistry

Course Name: Applied Chemistry (Mechanical, Aeronautical, Food Technology, Civil)

1. He advised to concentrate more on effects of chemicals on human body, industries and the climate change. In this regard he suggested to add few points in each chapter.
2. He also advised to correlate chemistry with new techniques and modern development in each branch of engineering and technology.
3. He appreciated the conduction of ISE-activities like case study, preparation of composites along with their rubrics.
4. His suggestions in each unit in brief are as below: i) Disinfection of water and waste water management was suggested to add in unit water technology and management.
ii) Biodegradable polymers, sodium ion batteries and green house effect with it's remedies were also suggested to add in unit nos. 3, 4 and 6 respectively.

Course Name: Applied Chemistry (Aeronautical)

1. He advised to concentrate more on effects of chemicals on human body, industries and climate change. In this regard he suggested to add few points in each chapter.
2. He also advised to correlate chemistry with new techniques and modern development in each branch of engineering and technology.
3. His suggestions in each unit in brief are as below: i) Disinfection of water and waste water management was suggested to add in unit water technology and management.
ii) In unit no. 4 energy technology use of fuels in propellants and aircraft industry, and in unit no. 6 use of alloys in aircraft industries were suggested to add.

Course Name: Applied Chemistry (Electrical)

1. He advised to concentrate more on effects of chemicals on human body, industries and climate change. In this regard he suggested to add few points in each chapter.
2. He also advised to correlate chemistry with new techniques and modern development in each branch of engineering and technology.
3. His suggestions in each unit in brief are as below: i) Disinfection of water and waste water management was suggested to add in unit water technology and management.
ii) Biodegradable polymers, sodium ion batteries, Ni-Cd batteries and different types of oils in transformers were also suggested to add in unit no. 4.

Course Name: Applied Chemistry (CSE, AI&DS, CSE-IoT and Robotics &AI)

1. He advised to concentrate more on effects of chemicals on human body, industries and climate change. In this regard he suggested to add few points in each chapter.
2. He also advised to correlate chemistry with new techniques and modern development in each branch of engineering and technology.
3. His suggestions in each unit in brief are as below: i) Disinfection of water and waste water management was suggested to add in unit water technology and management.
ii) Biodegradable polymers and sodium ion batteries were also suggested to add in unit nos. 5 and 6 respectively.

**Course Name: Professional Communication Skills
(Common for all programmes)**

The existing course content was reviewed by Dr. Mahesh Shinde, BOS Member, KIT's College of Engineering, Kolhapur has suggested following changes in existing syllabus of professional Communication Skills:

1. He suggested that, List of practical's should be 24.
2. He suggested to change the title of Pr. No.12 as Preparing Effective Power point Presentation instead of Preparing Power point Presentation. He also suggested to keep proper sequence of experiments. I.e. Pr.no.12- Preparing Effective Power point Presentation & Pr. no.13- Delivering Effective Power point Presentation.
3. He suggested to change the title for Pr. No.17 as- Public Speaking instead of extempore
4. He suggested to add one practical as Blog Writing. He advised to give subjects to students for Blog writing like Memorable day in my life. He further suggested to change the sequence of practical's after Pr. no.2- Self Introduction - add Pr.no.3- SWOT Analysis & Pr.no.4- Blog Writing.
5. He reviewed deviation in professional communication skills syllabus
6. He reviewed ISE activities and suggested no change.

Course Name: Biology

The existing course content of Biology for Engineers is reviewed by Dr. Krishna Namdev Alsundkar, BOS Member, Academic Expert, Assistant Professor, Department of Chemistry, Government College of Engineering, Karad and after discussion, it is approved.

Course Name: Indian Knowledge System

The existing course content of Indian Knowledge System is reviewed by Dr. Mahesh Shinde, other BOS Members from KIT's College of Engineering Kolhapur, DOT Kolhapur, Government college of engineering Karad and after discussion, it is approved.

Course Name: Liberal courses consist following bouquet

- Introduction to Yoga and Mindfulness
- Physical Fitness and Lifestyle Management
- Six-Sigma Happiness and Mind Mechanics
- Creativity through Visual Arts
- Community Engagement through NSS
- Cultural Exploration & Heritage

The existing course content of liberal courses which includes bouquet of six courses out of which student have to select any one course of his/ her choice. Introduction to Yoga and Mindfulness, Physical Fitness and Lifestyle Management, Six-Sigma Happiness and Mind Mechanics, Creativity through Visual Arts, Community Engagement through NSS and Cultural Exploration & Heritage is reviewed by Dr. Amit A. Bagade and Dr. Hanmant P. Salunkhe and after discussion, it is approved.

The meeting concluded with a vote of thanks by the Chairperson. The BoS members appreciated the efforts of the department in curriculum enhancement and expressed willingness to support future activities.


Prof. Mrs. S. S. Mohite
(Secretary)


Prof. Dr. S. S. Mohite
(HOD-Basic Sciences)



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Department of Basic Sciences

6th Board of Studies Meeting 2025 Attendance

Date: 01/08/2025

Sr. No.	Name of Member	Designation and Address	Position	Sign
1	Dr. S. S. Mohite	HOD Department of Basic Sciences, ADCET, Ashta	Chairman	
2	Dr. Amit A Bagade	Assistant Professor, Department of Sciences and Humanities, RIT, Islampur (Department of Physics)	University Representative	
3	Dr. Krishna Namdev Alsundkar	Assistant Professor, Department of Chemistry Government College of Engineering, Karad	Academic Expert	
4	Dr. Hanmant P. Salunkhe	Assistant Professor, Department of Mathematics Department of Technology, Shivaji University, Kolhapur	Academic Expert	
5	Dr. Mahesh Balasaheb Shinde	Associate Professor, Department of Professional Communication, KIT,s College of Engineering, Kolhapur.	Academic Expert	online
6	Dr. Tanaji V. Kolekar	Managing Director, Eco Green Agro sciences, Pvt. Ltd	Industry Representative	-AB-
7	Mr. Chetankumar Vasantao Suryawanshi	Assistant Professor	ADCET Ashta	
8	Mrs. Savita Santosh Mohite	Assistant Professor	ADCET Ashta	
9	Mr. Pravin Siddheshwar Gore	Assistant Professor	ADCET Ashta	
10	Ms. Jyoti Sadashiv Kurade	Assistant Professor	ADCET Ashta	
11	Mr. Laxman Shamrao Sawant	Assistant Professor	ADCET Ashta	
12	Mrs. Surekha. Deepak Mane	Assistant Professor	ADCET Ashta	
13	Mr. Rahul Bhimrao Deshmukh	Assistant Professor	ADCET Ashta	
14	Mrs. Vijayalaxmi Maruti Vairat	Assistant Professor	ADCET Ashta	
15	Mr. Ziyauddin Dastgir Sande	Assistant Professor	ADCET Ashta	
16	Mr. Audumbar Gangaram Shinde	Assistant Professor	ADCET Ashta	



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Department of Basic Sciences

Sr. No.	Name of Member	Designation and Address	Position	Sign
17	Mr. Aniket Ashok Patil	Assistant Professor	ADCET Ashta	
18	Dr. Shekhar Balkrishna Mali	Assistant Professor	ADCET Ashta	
19	Mr. Maulaali Rasulbhai Mulla	Assistant Professor	ADCET Ashta	
20	Dr. Santosh Shankar Desai <i>Shivaji</i>	Associate Professor	ADCET Ashta	
21	Dr. Kedar Sharad Joshi	Associate Professor	ADCET Ashta	
22	Dr. Shilpa Shashikant Devkule	Assistant Professor	ADCET Ashta	
23	Dr. Ruturaj Ramchandra Kuldeep	Assistant Professor	ADCET Ashta	
24	Dr. Pradnya Gulabrao Raje	Assistant Professor	ADCET Ashta	
25	Mr. Kapil MadhavLalit	Counsellor	ADCET Ashta	

Head

Department of Basic Sciences



Department of Basic Sciences
Board of Studies (BoS) Meeting
 Date: 1 August 2025
 Venue: Department of first Year Engineering

Subject Expert : Dr. Hanmant P. Salunkhe,
Department of Technology, Kolhapur

Suggestions/ Recommendations for Semester-I (Course Specific)

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	Electrical	3EEBS101	Unit-1: Add Normal form of matrix as it is required for coding and decoding, signal and image processing Unit-3: i) Replace trigonometric functions with circular functions under hyperbolic functions for accuracy. iii) Include analytic functions and Cauchy-Riemann (CR) equations, as they are important for GATE and further studies. iii) Remove basic complex number content, as it is already covered in 11th and 12th standard. Electrical: What 2 represents in structure under the column S.	Added in all programs
	Civil	3CVBS101		Replaced as per suggestion
	Aeronautical	3AEBS101		Planned to add complete topic "Analytic functions and Complex integral" in higher semester of respective branch as per requirement
	AIDS	2ADBS101		
	CSE (IoT & CS)	2ICBS101		
	Robotics	0RABS101		Informed to department for guidelines of the same.
2	Food	2FTBS101	Modify some content by considering the background of Biology (PCB) students. Instead of partial differentiation add some basics of differentiation and integration to strengthen their foundational	Unit Calculus is added. Followings are the details Calculus: Functions of single variables, Limits and continuity, Derivatives and geometrical meaning, Basics of



			understanding	integration, Definite and indefinite integrals, Functions of several variables, Partial derivatives of first order
3	CSE	3CSBS101	• Unit 5: Mention specific methods for solving definite and indefinite integrals to provide clarity and structure in teaching and assessment. • Unit 6: Include analytic functions and Cauchy-Riemann (CR) equations, as they are important for GATE and further studies.	Instead of methods, review of integration is mentioned and Weddles rule is added. As analytic functions and Cauchy-Riemann equations are not part of the GATE syllabus, so not added in the syllabus
4	Mech	3MEBS101	The Semester I syllabus of Applied Mathematics is overloaded, with 8–9 major topics, including some topics from higher semester. This imposes an undue burden on first-year students who are still adapting to engineering education. • Reduce and streamline the Semester I content to match the students' academic level. • Shift advanced topics back to higher semesters. • If no separate Mathematics course is available in higher semester, ask respective engineering departments to embed essential mathematical concepts into their subject syllabi.	Course content has been reduced as per the requirement of Department. See Annexure-I



Suggestions/ Recommendations for Semester-II (Course Specific)

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	Mechanical	3MEBS109	• Unit-1: The current title of Unit-1 lacks clarity. It is recommended to rename the unit title as "Linear Differential Equation of order n with Constant Coefficient". • Unit-1 included theory and applications of LDE. Covering both aspects effectively within 8 hours is not practical. Hence, it is strongly recommended to split Unit-1 into two separate units. • Unit 5: The current Unit-5 includes two major topics special functions and multiple integrals. Both are conceptually rich and require adequate instructional time. Covering both these topics within the limited 8 hour duration is not feasible. Therefore, it is recommended to split Unit-5 into two separate units • Unit-6: Remove the word Application from unit title.	Course content has been reduced as per the requirement of Department. See Annexure-II
2	CSE	3CSBS109	• Change the order of units by placing differentiation and differential equations first, followed by other calculus for better flow and understanding • Interchange the unit on Vector Space from Sem-II with Numerical Solution of Algebraic and Transcendental Equations or interchange Complex Numbers of Sem-I with Partial Differentiation and its Applications from to balance difficulty level and ensure better continuity in learning.	• The suggestion regarding reordering of units has been noted. To maintain the logical sequence of prerequisite knowledge, the order of units has not been changed. • The suggestion was considered, but no change has been made in the order of units to maintain continuity and prerequisite flow.



023	Food	2FTBS110	• Modify some content by considering the background of Biology (PCB) students. • As the course includes topics from Statistics and numerical methods, the title Applied Mathematics-II does not reflect the content accurately. It is recommended to change the title to something more appropriate such as Engineering Mathematics-II. • Unit 6: Along with Newton's forward and backward methods for equally spaced values, add a method like Lagrange's or Divided Difference for unequally spaced values to complete the content.	• Since almost all topics are numerical and the concepts are well-suited for PCB students, no changes have been made to the syllabus. • The suggestion regarding the course title change from "Applied Mathematics-II" to "Engineering Mathematics-II" has been informed to the respective department for further action • Newton's divided difference formula is added
3	Civil / Aeronautical / Electrical	3CVBS111 3AEBS109 3EEBS109	• Modify the proper and improper integrals part or add a brief introduction to special functions to enhance the relevance and completeness of the topic.	• Introduction to special function is added
4	AIDS / CSE (IoT) / Robotics	2ADBS110 2ICBS109 0RABS109	• Change the title of Unit 5 from Finite Differences and Interpolation to Interpolation for better clarity and focus.	• No changes have been made because finite differences are the basis for several interpolation methods. Including it in the title makes the content clearer and more accurate

General Suggestions / Recommendations

Sr. No	Suggestions / Recommendations	Action Taken
1	The Course title should reflect the actual content of course. It is recommended to use Engineering Mathematics-I/II instead of Applied Mathematics-I/ II	The suggestion regarding changing the course title to "Engineering Mathematics-I/II" to better reflect the actual content has been informed to the respective department for further action.
2	The mention of "2" under Self Study for Electrical, AIDS, Robotics, and Food programs is unclear. It should be specified whether this involves classroom	Requested respective departments to provide guidelines regarding the same.



	hours, affects faculty workload, or requires student presence. Clear guidelines are needed.	
3	Under useful links, mention the official NPTEL course link instead of YouTube video link of the NPTEL course.	Official NPTEL course links are mentioned
4	The editions of the listed reference and text books should be updated to recent editions. Also, consider adding new books by reputed authors that align with the current syllabus and recent developments in the subject.	The suggestion was considered, but no changes have been made in the list of textbooks and references as the existing editions and titles are sufficient for the current syllabus.
5	Offer the Numerical Methods course as an Open Elective wherever required, so that students from other branches can opt for it based on their program needs and interests.	Informed to the respective department for necessary consideration and further action.
6	In the Pre-requisites section, clearly mention that the use of a non-programmable calculator is allowed during the course and examinations.	As the use of only non-programmable calculators is already permitted during the course and examinations, it has not been included in the prerequisites section

Suggestions/ Recommendations for Tutorials and ISE Activity

Sr. No	Suggestions / Recommendations	Action Taken
1	Plan the tutorials according to a 15-week schedule, aligning with the academic calendar.	In the teaching plan, the first week is kept for introduction. Two revision tutorials are planned before MSE and ESE for students who remained absent due to genuine reasons, and two weeks are allocated for teachers' evaluation.
2	Prepare a list of 12 – 15 tutorials covering all units of the syllabus with approximately equal weightage across topics. Ensure that at least 10 tutorials are conducted during the semester, covering content from each unit to maintain balanced practice and assessment.	A total of 10 tutorials covering the entire syllabus have been planned with balanced weightage across all units. All tutorials are compulsory for students.
3	Use tools like MATLAB, Scilab, GeoGebra, and Excel in tutorials for practical understanding and better visualization of concepts.	We will try to implement the use of MATLAB, Scilab, GeoGebra, and Excel in the current academic year for numerical and statistical tutorials.
4	Include ISE activities such as Seminar and Mathematical Modeling	Updated in the ISE activity list with seminar and mathematical



	wherever relevant, to promote deeper understanding, enhance presentation skills, and encourage real-life application of mathematical concepts.	modeling included.
5	Introduce basic mathematics-related software such as MATLAB, Scilab, GeoGebra, or Excel in the syllabus to help students develop computational skills and apply mathematical concepts in practical scenarios.	The suggestion is noted. At present, no change has been made in the syllabus, but efforts will be taken through workshops and tutorials to provide exposure to MATLAB, Scilab, GeoGebra, and Excel for developing computational skills.

Suggestions/ Recommendations for Question Paper

Sr. No	Suggestions / Recommendations	Action Taken																		
1	In the current format, students may observe that they can skip one topic in both MSE and ESE and still score well. To address this, modify the question paper pattern so that skipping any one topic will impact performance. This encourages comprehensive learning of the entire syllabus. <table border="1"> <thead> <tr> <th>Q. 1</th><th>Attempt the following</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>a)</td><td>Unit-1 /2/3</td><td>5</td></tr> <tr> <td>b)</td><td>Unit -2/3/1</td><td>5</td></tr> <tr> <td>c)</td><td>Unit-3/1/2</td><td>5</td></tr> <tr> <td></td><td>OR</td><td></td></tr> <tr> <td>c)</td><td>Unit-3/1/2</td><td>5</td></tr> </tbody> </table>	Q. 1	Attempt the following	Marks	a)	Unit-1 /2/3	5	b)	Unit -2/3/1	5	c)	Unit-3/1/2	5		OR		c)	Unit-3/1/2	5	The observation regarding the current question paper format allowing students to skip one unit and still score well has been forwarded to the Board of Examination for further discussion and necessary action.
Q. 1	Attempt the following	Marks																		
a)	Unit-1 /2/3	5																		
b)	Unit -2/3/1	5																		
c)	Unit-3/1/2	5																		
	OR																			
c)	Unit-3/1/2	5																		


 Course Coordinator


 Chairman, Board of Studies
 Dr. S. S. Mohite



Annexure-I

Applied Mathematics-I

Module	Contents	Lecture Hours
I	Solution of System of Linear Equations: Rank of matrix: Concept and computation using Echelon form, System of linear equations and types, Solution of non-homogeneous and Homogeneous system of linear equations by Rouché–Capelli Theorem., Solution of system of non-homogeneous linear equation by	8
II	Eigen Values and Eigen Vectors: Definition of vectors in R^n , Linear Dependence and Independence of Vectors, Characteristic Equation of Matrix, Cayley-Hamilton theorem (statement only), Applications of Cayley-Hamilton theorem, Eigen Values and Properties, Eigen Vectors and Properties.	7
III	Partial Differentiation and Applications: Functions of several variables, partial derivatives of first order, Higher order partial derivatives, Homogeneous functions, Euler's Theorem on homogeneous function: statement and verification, Jacobians and Properties, Maxima and minima of functions of two variables.	8
IV	Ordinary Differential Equation of first order and first degree: Linear differential equation, exact differential equation, reducible to exact differential equation, reducible to linear differential equation, Applications of engineering (branch oriented)	8
V	Numerical Solution of Ordinary differential equation of First Order & First Degree: Euler's method, Modified Euler's method, Runge–Kutta third order, Runge-Kutta Method of order four, Taylor Series method.	7
VI	Numerical Solution of Algebraic and Transcendental Equations: Introduction, solution of equations by Bisection method, False Position (Regula Falsi) method, Newton-Raphson method, Secant Method, Fixed point iteration method.	7



Annexure-II

Applied Mathematics-II

Module	Contents	Lecture Hours
I	Curve fitting and Regression: Method of Least Squares, Fitting of Straight Line, Fitting of Parabola, Fitting of exponential curves, Lines of Regression.	7
II	Finite Differences and Interpolation: Finite differences, Forward and Backward Difference Newton's forward Interpolation formula, Newton's backward Interpolation formula, Stirling Interpolation formula, , Newton's Divided Difference, Lagrange's interpolation formula.	8
III	Expansion of Functions and Indeterminate Forms: Maclaurin's series Taylor's series, Standard expansions, Expansion of function using Standard series, Indeterminate forms.	7
IV	Statistical Measures: Introduction, Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Partition values: Quartiles, Deciles and Percentiles, Concept of dispersion, Range, Quartile Deviation, Mean Deviation, Mean Square Deviation, Variance and Standard Deviation.	8
V	Special Functions: Proper and improper integrals, Gamma function, Properties of Gamma function, Beta function, Properties of Beta function, Relation between Beta and Gamma functions, error function and its properties.	7
VI	Multiple Integral and Its Applications: Double Integrals, Triple integral, Evaluation of double integral over given region, Change of Order of Integration, Change to polar coordinates, Applications to Area and Mass of plane lamina.	8



Department of Basic Sciences
Suggestions/ Recommendations for Semester-I (Applicable to Mechanical Engineering)
Course: Applied Physics

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	Mechanical	3MEBS110	1. Review of teaching scheme and credits allotted to Applied Physics 2. Improve implementation of assessment tools such as video presentations and model making 3. Remove interference in thin films, diffraction at multiple slits, and optical activity from Unit I 4. No modification required in Unit II – Laser 5. Remove derivation of Sabine's formula and add Magnetostriction oscillator in Unit III 6. Add symmetry in cubic crystal and remove applications of X-ray diffraction from Unit IV 7. Add semiconductor, its types and applications, and remove structure of crystalline solids from Unit V 8. No modification required in Unit VI – Nanophysics 9. Replace experiments on Double Refraction, Resolving Power of Grating, and Seven Crystal Systems 10. Add the reference book <i>Nanotechnology</i> by Sulbha Kulkarni and remove <i>Solid State Physics</i>	1. Teaching scheme and credit distribution for Applied Physics were discussed and reviewed 2. Methods for conducting and evaluating video presentations and model making activities effectively were discussed. 3. The suggested topics were removed from Unit – Interference, Diffraction and Polarization. 4. No changes were made in Unit II. 5. Sabine's formula derivation was removed and Magnetostriction oscillator was added in Unit III – Acoustics and Ultrasonics. 6. Symmetry in cubic crystal was added and applications of X-ray diffraction were removed from Unit IV – Crystallography. 7. Semiconductor, its types and applications were added and structure of crystalline solids was removed from Unit V – Introduction to Materials. 8. No changes were made in Unit VI. 9. Laboratory experiments on Hall Effect, B-H Curve Tracer, and Determination of Miller Indices were introduced in place of the removed experiments. 10. Add the reference book <i>Nanotechnology</i> by Sulbha Kulkarni and remove <i>Solid State Physics</i>



Program- Artificial Intelligence and Data Science

Course: Engineering Physics

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
2	AIDS	2ADBS111	1. Review the teaching scheme and credits allotted to Applied Physics 2. Improve the implementation of assessment tools for video presentations 3. Remove Diffraction at multiple slits and Optical activity from Unit I – Diffraction and Polarization 4. No modifications required in Unit II – Laser and Fiber Optics 5. No modifications required in Unit III – Nanophysics 6. Add the reference book <i>Nano Technology</i> by Sulbha Kulkarni	1. The teaching scheme and credit distribution for Applied Physics were discussed and reviewed. 2. Effective methods for conducting and evaluating video presentations were discussed. 3. The topics “Diffraction at multiple slits” and “Optical activity” were removed from Unit I. 4. No changes were made in Unit II. 5. No changes were made in Unit III. 6. The reference book <i>Nano Technology</i> by Sulbha Kulkarni was added to the reference list.



Program- Aeronautical Engineering

Course: Applied Physics

Course Code-3AEBS102

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	AERO	2AEBS101	1. Remove interference in thin film from Unit-I 2. Add diffraction at multiple slits in Unit-I 3. Add optical activity in Unit-I 4. Unit-II Laser – no change 5. Remove derivation of Sabine formula in Unit-III 6. Add Magnetostriction oscillator in Unit-III 7. Add symmetry in cubic crystal in Unit-IV 8. Remove applications of X-ray diffraction from Unit-IV 9. Add semiconductor, its types and applications in Unit-V 10. Remove structure of crystalline solids from Unit-V 11. Unit-VI Nanophysics – no change 12. Replace Double Refraction experiment 13. Replace Resolving Power of Grating experiment 14. Replace Seven Crystal System experiment 15. Add reference book: <i>Nanotechnology</i> by Sulbha Kulkarni 16. Remove reference book: <i>Solid State Physics</i>	1. Interference in thin film removed from Unit-I 2. Diffraction at multiple slits added in Unit-I 3. Optical activity added in Unit-I 4. No changes made in Unit-II 5. Derivation of Sabine formula removed 6. Magnetostriction oscillator added in Unit-III 7. Symmetry in cubic crystal added in Unit-IV 8. Applications of X-ray diffraction removed from Unit-IV 9. Semiconductor, its types and applications added in Unit-V 10. Structure of crystalline solids removed from Unit-V 11. No changes made in Unit-VI 12. Hall Effect experiment introduced 13. B.H. Curve Tracer experiment introduced 14. Determination of Miller Indices experiment introduced 15. Reference book added 16. Reference book removed



Program- Internet of Things and Cyber Security including Blockchain Technology

Course: Applied Physics

Course Code-2ICBS111

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	2	IOT	1. Remove interference in thin film from Unit-I 2. Include diffraction at multiple slits in Unit-I 3. Include optical activity in Unit-I 4. Unit-II Laser – no change 5. Remove derivation of Sabine formula in Unit-III 6. Add Magnetostriction oscillator in Unit-III 7. Add symmetry in cubic crystal in Unit-IV 8. Remove applications of X-ray diffraction from Unit-IV 9. Add semiconductor, its types and applications in Unit-V 10. Remove structure of crystalline solids from Unit-V 11. Unit-VI Nanophysics – no change 12. Replace Double refraction experiment 13. Replace Resolving Power of grating experiment 14. Replace Seven crystal system experiment 15. Add reference book: <i>Nanotechnology</i> by Sulbha Kulkarni 16. Remove reference book: <i>Solid State Physics</i>	1. Interference in thin film removed from Unit-I 2. Diffraction at multiple slits added in Unit-I 3. Optical activity added in Unit-I 4. No changes made in Unit-II 5. Derivation of Sabine formula removed 6. Magnetostriction oscillator added 7. Symmetry in cubic crystal added 8. Applications of X-ray diffraction removed 9. Semiconductor, its types and applications added 10. Structure of crystalline solids removed 11. No changes made in Unit-VI 12. Hall effect experiment added in place of Double refraction 13. B.H. curve tracer experiment added in place of R.P. of grating 14. Determination of Miller indices experiment added in place of Seven crystal system 15. Reference book added 16. Reference book removed



Program- Food technology

Course: Applied Physics

Course Code-2FTBS111

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	FT	2FTBS111	1. Remove interference in thin film from Unit-I: Interference, Diffraction and Polarization 2. Add diffraction at multiple slits in Unit-I 3. Add optical activity in Unit-I 4. Unit-II: Laser – No change 5. Remove derivation of Sabine formula in Unit-III: Acoustics and Ultrasonic 6. Add Magnetostriction oscillator in Unit-III 7. Add symmetry in cubic crystal in Unit-IV: Crystallography 8. Remove applications of X-ray diffraction from Unit-IV 9. Add semiconductor, its types and applications in Unit-V: Introduction to Material 10. Remove structure of crystalline solids from Unit-V 11. Unit-VI: Nanophysics – No change 12. Replace Double Refraction experiment in Laboratory 13. Replace Resolving Power of Grating experiment in Laboratory 14. Replace Seven Crystal System experiment in Laboratory 15. Add reference book: <i>Nanotechnology</i> by Sulbha Kulkarni 16. Remove reference book: <i>Solid State Physics</i>	1. Interference in thin film removed from Unit-I 2. Diffraction at multiple slits added in Unit-I 3. Optical activity added in Unit-I 4. No changes incorporated in Unit-II 5. Derivation of Sabine formula removed 6. Magnetostriction oscillator added in Unit-III 7. Symmetry in cubic crystal added in Unit-IV 8. Applications of X-ray diffraction removed from Unit-IV 9. Semiconductor, its types and applications added in Unit-V 10. Structure of crystalline solids removed from Unit-V 11. No changes incorporated in Unit-VI 12. Hall Effect experiment included 13. B.H. Curve Tracer experiment included 14. Determination of Miller Indices experiment included 15. Reference book added 16. Reference book removed



Program- Electrical Engineering
Course: Applied Physics Course Code-3EEBS102

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	Electrical	3EEBS102	1. Remove diffraction at multiple slits from Unit-I: Diffraction and Polarization 2. Remove optical activity from Unit-I 3. Unit-II: Laser and Fiber Optics – No change 4. Remove derivation of Sabine formula in Unit-III: Acoustics and Ultrasonic 5. Add Magnetostriction oscillator in Unit-III 6. Add symmetry in cubic crystal in Unit-IV: Crystallography 7. Remove applications of X-ray diffraction from Unit-IV 8. Rearrange points in Semiconductor topic in Unit-V 9. Add soft and hard magnetic materials in Unit-V 10. Add hysteresis effect and domain theory in Unit-V 11. Unit-VI – No change 12. Replace Double Refraction experiment in Laboratory 13. Replace Resolving Power of Grating experiment in Laboratory 14. Replace Seven Crystal System experiment in Laboratory 15. Add reference book: <i>Nanotechnology</i> by Sulbha Kulkarni 16. Remove reference book: <i>Solid State Physics</i>	1. Diffraction at multiple slits removed from Unit-I 2. Optical activity removed from Unit-I 3. No changes incorporated in Unit-II 4. Derivation of Sabine formula removed 5. Magnetostriction oscillator added in Unit-III 6. Symmetry in cubic crystal added in Unit-IV 7. Applications of X-ray diffraction removed from Unit-IV 8. Semiconductor topics rearranged in Unit-V 9. Soft and hard magnetic materials added in Unit-V 10. Hysteresis effect and domain theory added in Unit-V 11. No changes incorporated in Unit-VI 12. Hall Effect experiment included 13. B.H. Curve Tracer experiment included 14. Determination of Miller Indices experiment included 15. Reference book added 16. Reference book removed



Program- Robotics

Course: Physics

Course Code-0RABS110

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	Robotics	0RABS110	1. Remove diffraction at multiple slits from Unit-I: Diffraction and Polarization 2. Remove optical activity from Unit-I 3. Unit-II: Laser and Fiber Optics – No change 4. Unit-III: Nanophysics – No change 5. Add reference book: <i>Nanotechnology</i> by Sulbha Kulkarni	1. Diffraction at multiple slits removed from Unit-I 2. Optical activity removed from Unit-I 3. No changes incorporated in Unit-II 4. No changes incorporated in Unit-III 5. Reference book added

05/11/20
Course Teacher


Chairman, Board of Studies
Dr. S. S. Mohite
ADCET, Ashta

Course Name: Applied Chemistry

[Mechanical-3MEBS102, Food Technology-2FTBS102, Civil-3CVBS109]

Sr. No.	Suggestions / Recommendations	Actions Taken
1	Concentrate more on the effects of chemicals on the human body, industries and climate change by adding relevant points in each chapter.	Relevant topics highlighting the Green chemistry with industrial applications and environmental/ climatic effects were incorporated in unit no. VI of the curriculum.
2	Correlate chemistry with new techniques and modern developments in various branches of engineering and technology.	Interdisciplinary applications of chemistry related to modern engineering and technological advancements were included in the syllabus content and classroom discussions. For example: Advanced Energy Systems in unit no. IV.
3	Appreciation for conducting ISE activities like case study and preparation of composites along with rubrics.	Existing ISE activities were appreciated and continued. Rubrics for assessment of case studies and composite preparation activities were retained and refined for effective evaluation.
4	Add “Disinfection of water” and “Waste water management” in Unit – Water Technology and Management.	Suggested topics were incorporated into the respective unit to strengthen practical and environmental aspects of water treatment.
5	Add “Biodegradable polymers” in Unit–III	Topic included in Unit–III syllabus as recommended.
6	Add “Sodium ion batteries” in Unit–IV	Emerging battery technology topic added in Unit–IV to align the curriculum with recent technological developments.
7	Add “Greenhouse effect and its remedies” in Unit–VI	Environmental concerns related to greenhouse effect and preventive/remedial measures were incorporated in Unit–VI.

Course Name: Applied Chemistry (Aeronautical-3AEBS110)

Sr. No.	Suggestions / Recommendations	Action Taken
1	Concentrate more on the effects of chemicals on the human body, industries and climate change by adding relevant points in each chapter	Necessary content related to the impact of chemicals on human health, industrial applications and climate change was incorporated into unit no. IV and VI of the curriculum.
2	Correlate chemistry with new techniques and modern developments in various branches of engineering and technology	Modern technological applications and interdisciplinary correlations with engineering branches were included in the respective units. For example: Advanced Energy Systems in unit no. IV.
3	Add “Disinfection of water” and “Waste water management” in Unit – Water Technology and Management	The suggested topics were incorporated into the Water Technology and Management unit to enhance environmental and industrial relevance.
4	In Unit-IV (Energy Technology), add use of fuels in propellants and aircraft industry	The application of fuels in propellants and aircraft industries was included in Unit-IV as recommended.
5	In Unit-VI, add use of alloys in aircraft industries	Applications of alloys in aircraft industries were added in Unit-VI to strengthen the industrial and technological perspective of the syllabus.

Course Name: Applied Chemistry (Electrical-3EEBS110)

Sr. No.	Suggestions / Recommendations	Action Taken
1	Concentrate more on the effects of chemicals on the human body, industries and climate change by adding relevant points in each chapter	It was decided to discuss the impact of chemicals on human health, industrial applications and climate change during laboratory activities.
2	Correlate chemistry with new techniques and modern developments in various branches of engineering and technology	Modern technological applications and interdisciplinary correlations with engineering branches were included in the respective units. For example: Photo catalysis of water in unit no. IV.
3	Add “Disinfection of water” and “Waste water management” in Unit – Water Technology and Management	Suggested topics were included in the Water Technology and Management unit to strengthen environmental and industrial applications.
4	Add “Biodegradable polymers” in Unit–VI	Topic incorporated in Unit–VI as recommended
5	Add “Sodium ion batteries” and “Ni-Cd batteries” in Unit–V	Emerging and conventional battery technologies were added in Unit–V to enhance understanding of electrochemical energy storage systems relevant to electrical engineering.
6	Add “Different types of oils used in transformers” in Unit–IV	Information regarding transformer oils and their applications was not more relevant to first year engineering students.

Course Name: Applied Chemistry

(CSE-3CSBS102, AI&DS-2ADBS111, CSE-IoT- 2ICBS111 and Robotics & AI-ORABS109)

Sr. No.	Suggestions / Recommendations	Action Taken
1	Concentrate more on the effects of chemicals on the human body, industries and climate change by adding relevant points in each chapter	Relevant points highlighting the effects of chemicals on human health, industrial applications and climate change were incorporated into the respective chapters of the syllabus.
2	Correlate chemistry with new techniques and modern developments in various branches of engineering and technology	Modern technological developments and interdisciplinary applications related to engineering and technology were integrated into the curriculum.
3	Add “Disinfection of water” and “Waste water management” in Unit – Water Technology and Management	The suggested topics were incorporated into the Water Technology and Management unit to strengthen environmental and industrial relevance.
4	Add “Biodegradable polymers” in Unit–V	Topic included in Unit–Polymers and Composites for engineering applications as recommended.
5	Add “Sodium ion batteries” in Unit–VI	Topic incorporated in Unit–Energy Technology to introduce recent developments in energy storage technology.


Course Teacher


Chairman, Board of Studies
Dr. S. S. Mohite



Department of Basic Sciences
Board of Studies (BoS) Meeting

Date: 1 August 2025

Venue: Department of first Year Engineering

Subject Expert : Dr. Mahesh B. Shinde
Kolhapur Institute of Technology, Kolhapur

Suggestions/ Recommendations for Semester-I (Applicable to all branches)

Sr. No	Program	Course Code	Suggestion / Improvements	Action Taken
1	Aeronautical	3AEHS114	This is a common syllabus for all branches and hence, the suggestions apply to syllabi of Professional Communication Skills/Communication Skills prescribed for all the F.Y. Classes. 1. In the view of 15 Weeks' tenure for teaching, the subject expert suggested to add 2 more practical components in the existing 22. Hence, the total no. of practical will be 24. 2. The subject expert asked us to decide whether we prefer to add 2 ISE sessions in the list or practicals instead of adding 2 new practical components.	1. Added 02 practical components and the present syllabus contains 24 practical components. 2. According to the suggestions of Dean Academics, we decided to add 2 ISE sessions along with 24 practical components on experimental levels. If needed, we shall think of curtailing the number of practical components to 22+ 2 ISEs.
	AIDS	2ADHS107		
	Civil	3CVHS114		
	CSE	3CSHS106		
	CSE (IoT & CS)	3ICHHS106		
	Electrical	3EEHS114		
	Food	2FTHS115		
	Mechanical	3MEHS114		
	Robotics	0RAHS106		



			3. The another suggestion was regarding changes in the sequence of practicals. Now the added practical on SWOT analysis will be practical no. 2, two consequent practicals i.e. no. 13 & 14 should be on Presentation Skills. 4. The subject expert suggested new practical Blog Writing should follow practical named as Technical Writing.	3. Changes made in the syllabus as per the suggestion by the subject expert. 4. As per his suggestions, we changed the sequence and the practical Blog Writing follows Technical Writing now .
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Course Coordinator

Chairman, Board of Studies
Dr. S. S. Mohite
ADCET, Ashta



**Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and
Technology, Ashta**



Course: Biology for Engineers

Sr. No.	Suggestions / Recommendations	Action Taken
1	The existing curriculum of the Biology for Engineers course was reviewed by the subject expert and found to be appropriate and relevant. After detailed discussion, the course content was approved for implementation without any changes.	The syllabus content was discussed thoroughly and approved without any modifications.

Course Coordinator

**Chairman, Board of Studies
Dr. S. S. Mohite
ADCET, Ashta**



**Sant Dnyaneshwar Shikshan Sanstha's
Annasaheb Dange College of Engineering and
Technology, Ashta**



Course: Indian Knowledge System

Sr. No.	Suggestions / Recommendations	Action Taken
1	The existing curriculum of the Indian Knowledge System course was reviewed by the subject expert and found to be appropriate and relevant. After detailed discussion, the course content was approved for implementation without any changes.	The syllabus content was discussed thoroughly and approved without any modifications.


Course Coordinator


**Chairman, Board of Studies
Dr. S. S. Mohite
ADCET, Ashta**