HSNC Board's
Smt. Chandibai Himathmal Mansukhani College
(Autonomous)
(Affiliated to the University of Mumbai)
University College Code : 217-JD Office : T14

HYDERABAD (SIND) NATIONAL COLLEGIATE BOARD

Estd. 1965

Principal : Dr. Manju Lalwani Pathak

Ref No: CHM (A) AC/C/01/2025
Date: 18th June 2025

CIRCULAR

The immediate attention of all concerned is invited to this office Circular No. CHM (A) AC 05/2025 dated 19th May, 2025 regarding the Choice Based and Credit Based Syllabus (CBCS) for all subjects of F.Y.B.Sc. & T.Y.B.Sc. in Botany SEM - I & SEM – V respectively.

It is hereby communicated that the recommendations of the syllabus made by the Ad-hoc Board of Studies in Botany coordinated by the Dean, Faculty of Pure Sciences in the meeting of Academic Council held on 23rd May, 2025 vide item No. 5.4, have been accepted and subsequently passed.

In accordance, therewith, the syllabus as per the CBCS has been brought into force with effect from the academic year 2025 – 2026 and accordingly the same is attached for reference and is available on the College's website www.chmcollege.in

Ulhasnagar - 421 003
18th June, 2025

Dr. Manju Lalwani Pathak
Principal & Chairperson, Academic Council

Copy forwarded for information to:-

1) The Dean, Faculty of Pure Sciences
2) The Chairperson, Ad-hoc Board of Studies.
3) The Controller of Examination.
4) The Registrar

HSNC Board's

Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar

(Autonomous)

Affiliated to the University of Mumbai

Bachelor of Science
(Botany)
(Aided)

Semester – I

Choice Based and Credit Based syllabus as per NEP 2020 with effect from the Academic Year 2025-2026

PREAMBLE

Botany is one of the most important subjects of life sciences. Plants have a unique position as a source of oxygen, food, fuel, medicines and almost all our daily necessities. Their role in the environment is unquestionable. This makes plant science a very interesting study with innumerable scopes. A B.Sc. degree in Botany opens doors to a myriad of career opportunities in fields such as plant science research, agriculture, environmental consulting, pharmaceuticals, biotechnology, conservation, education, and beyond. It provides a solid foundation for understanding and appreciating the fundamental role of plants in shaping our world.

The Botany department at this college has facilities of smart class, two laboratories as well as a well-equipped research laboratory, Fungal culture collection centre, seed bank, herbaria, Glass house for succulent plants, a well-managed K.M. Kundanani botanical garden with medicinal and economically important plants. The department conducts regular study tours, field studies, Nursery visit and industrial/research institute visits to impart knowledge on the basic and applied aspects of the subject. Through various experiments, projects, hands-on trainings and workshops; All such activities develop critical thinking, problem-solving, and analytical skills in students. Botany graduates are equipped to address pressing global challenges such as food security, biodiversity conservation, climate change, and sustainable resource management.

Program Outcomes for Undergraduate Degree in Botany

The Undergraduate Program in Botany is designed to provide students with comprehensive domain knowledge across various branches of plant science. In alignment with the **National Education Policy (NEP) 2020**, the program emphasizes skill-based learning, hands-on experience, and inter disciplinary integration.

This curriculum connects traditional Indian agricultural wisdom with modern scientific advances in Tissue culture, genetics, Plant Physiology, ecology, and environmental studies-preparing students for academic excellence, research, and real-world applications

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: Comprehension of Plant Diversity-Understand the diversity and evolutionary complexity of plant life, ranging from lower forms such as algae and fungi to higher land plants. Examine representative taxa to analyze morphological, physiological, and ecological adaptations, as well as their interactions and significance to human welfare.

PSO2: Integration of Core Botanical Disciplines-Demonstrate foundational and advanced knowledge in core areas of plant science including:

- **Cell Biology**: Cellular structure, organelles, and cellular processes
- **Genetics**: Principles of inheritance, molecular genetics, and gene expression
- **Plant Anatomy and Taxonomy**: Internal structure of plant organs and systematic classification of plant species
- **Ecology and Environmental Science**: Ecosystem dynamics, biodiversity, and plant-environment interactions
- **Plant Physiology and Biochemistry**: Functional aspects of plant life processes and underlying chemical mechanisms

PSO3: Application of Botany in Agriculture and Industry-Apply botanical knowledge to the cultivation and management of food and industrial crops. Understand primary agricultural practices and explore the commercial application of plant products thereby developing entrepreneurial and agri-business skills

PSO4: Environmental Awareness and Sustainability-Recognize the interdependence of flora, fauna, and humans within ecosystems. Advocate for biodiversity conservation, promote sustainable resource use, and contribute towards achieving national and global environmental goals, including the **United Nations Sustainable Development Goals (UN-SDGs)**

PSO5: Experimental Competence and Scientific Inquiry-Design and perform experiments in laboratory and field settings. Develop competencies in data collection, statistical analysis, and interpretation of results, scientific reporting, and effective communication of biological concepts

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.
(Botany)
(Aided)

Semester- I

Title: Plant Science and Human Welfare

Vertical - 1
Major Subject -2 Credits

With effect from
Academic Year 2025-2026

Title: Plant Science and Human Welfare
Course Code: CHMBOTI1

Sr. No.	Heading	Particulars
1	**Description of the Course:**	This course explores the fundamental principles of plant biology and their profound impact on human society. Topics include plant structure and function, reproduction and life cycles, as well as the role of plants in agriculture, medicine, and industry. Special emphasis is placed on the relationship between plants and human welfare, including food security. The course integrates scientific concepts with real-world applications, encouraging students to consider the ethical, economic, and environmental dimensions of plant uses.
2	**Vertical 1**	Major
3	**Type** **Teaching Methods**	Theory Lecture, Presentation, Seminar, Simulation etc.
4	**Credit**	2 Credits
5	**Hours allotted**	60 Hours
6	**Marks allotted**	50 Marks
7	**Course Objectives:** 1. To enable the students, identify the major groups of organisms amongst plants. 2. To enable the students, classify the major groups of organisms amongst plants. 3. To enable the students, compare and distinguish the characteristics of Cryptogams 4. To learn the economic importance of Cryptogams.	
8	**Learning Outcomes**: Student will be able to; **LO1** identify the major groups of organisms amongst plants. **LO2** classify the major groups of organisms amongst plants. **LO3** compare and distinguish the characteristics of Cryptogams **LO4** understand the economic importance of Cryptogams.	

9

Syllabus

UNIT I: Plant Science

- Outline of Plant Classification as per Linnaean system
- **Algae**-Systematic position and life cycle of genus ***Spirogyra.***
- Economic Importance of Algae
- **Fungi**- Systematic position and life cycle of genus ***Rhizopus***
- Economic Importance of Fungi
- **Bryophyta**-Systematic position and life cycle of ***Riccia***
- Economic Importance of Bryophyta

UNITII: Human Welfare

- Next Generation Plant Cultivation- Hydroponics, Vertical Gardening and *Spirulina* farming.
- Plant Based Industry- Textile: Bamboo, Banana, *Agave*, Pineapple and Lotus
- Natural Sweetener- *Stevia*
- Plant Waste Sustainable Material Innovation- Bagasse, Biocomposits and Biochar
- Natural Dyes- Turmeric (Rhizome), *Clitoria* (Flower), *Bixa*(Seeds)

10

Scheme of Examination andAssessment Pattern

Paper – 50 Marks

A. External Examination: Semester End External - 30 marks Time: 1:00 hours

Format of Question Paper

Attempt any 4 out of 6 questions.

Question No	Questions	Marks
Q1	Answer the following:	
A	Unit-1	8
B	Unit-2	7
Q2	Answer the following:	
A	Unit-1	8
B	Unit-2	7
Q3	Answer the following:	
A	Unit-2	8
B	Unit-1	7
Q4	Answer the following:	
A	Unit-2	8
B	Unit-1	7
		Total :30

B. Internal Examination: Continuous Evaluation - 20 marks

	Assessment / evaluation	Marks
1.	Class Test (Short notes/ MCQ's/ Match the Pairs/ Answer in one sentence/ Puzzles)	15
2.	Attendance / *Viva voce*	05
		Total 20

11	**REFERENCES:** 1. Gangulee Das and Dutta: College Botany Volume I and II (1994) New Central Book Agency, Calcutta (6th Edition). 2. Smith, G. M. (1990). Cryptogamic Botany Volume I (Algae & Fungi). McGraw Hill Publication, New Delhi (19th Edition). 3. Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology, John Wiley and Sons (Asia), Singapore. (4th Edition) 4. Fundamentals of Horticulture (Practical Manual): S.K. Pandey C.S. Pandey: Published by: Dean, College of Agriculture, Jabalpur Jawaharlal Nehru KrishiVishwavidyalaya Jabalpur, Madhya Pradesh482004Tele-fax:0761-2681236;web: www.jnkvv.org 5. Botany for Degree students by B. R. Vashishta (Algae, Fungi, Bryophyta) 6. Biostatistics and Biometry by Parihar and Parihar 7. Introduction to Biostatistics by Pranab Kumar Banerjee 8. Selvendran D. (2015). Large Scale Algal Biomass (*Spirulina*) Production in India. In: D. Das (Ed.) Algal Biorefinery: An Integrated Approach, Springer

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.
(Botany)
(Aided Course)

Semester- I

Title: Practical approaches in Plant Science

Vertical - 1
Practical -2 Credits

With effect from
AcademicYear2025-2026

Title: Practical approaches in Plant Science
Course Code: CHMBOTI2

Sr. No.	Heading	Particulars
1	**Description of the Course**	This practical course offers a comprehensive hands-on approach to foundational and applied biological sciences, focusing on microscopy, organismal biology, statistical analysis, and sustainable innovations. Students will study the structure and reproductive features of algae, fungi and bryophyte using simple and compound microscopes. The course includes demonstrations of next-generation cultivation techniques, introduction to bio-entrepreneurship through the utilization of natural products. Field visits and project work will further enhance students' understanding of biodiversity and ecological relationships, fostering scientific inquiry and environmental awareness.
2	**Vertical 1**	Major
3	**Type** **Teaching Methods**	Practicum
4	**Credit**	2 Credits
5	**Hours allotted**	60 Hours
6	**Marks allotted**	50 Marks
7	**Course Objectives:** 1. To enable the students, identify the major groups of organisms amongst plants. 2. To enable the students, classify the major groups of organisms amongst plants. 3. To enable the students, compare and distinguish the characteristics of Cryptogams 4. To learn the economic importance of Cryptogams	
8	**Learning Outcomes**: Student will be able to; **LO1.** Demonstrate proficiency in the use of simple and compound microscopes for the observation. **LO2.** Identify and describe the morphological and reproductive features lower plants. **LO3.** Apply basic biostatistical methods and biological data interpretation. **LO4.** Understand and evaluate modern sustainable cultivation practices. **LO5.** Develop entrepreneurial insights and ecological awareness	

9 Syllabus

- Study of Basic Microscopy: Simple and Compound Microscope.
- Study of vegetative and reproductive structures of *Spirogyra*.
- Study of vegetative and reproductive structures of *Rhizopus*.
- Study of vegetative and reproductive structures of *Riccia*.
- Introduction to next generation cultivation: Vertical Gardening, *Spirulina* farming (Demonstration).
- Introduction to entrepreneurship skills: Textile, Bagasse, Natural Dyes, Natural Sweetener
- Identification and Economic importance of Algae, Fungi, Bryophytes.(any 4 from each)
- Calculation of mean, median, mode and standard deviation.
- Graphical representation of data: Frequency polygon, Histogram, Bar-diagram, Pie- charts.
- Field Visit: Exploration of Natural Biodiversity.
- Project

10 Scheme of Examination and Assessment Pattern

Paper – 50 Marks

A. External Examination: Semester End External - 30 marks Time: 1:00 hours

Format of Question Paper

Question No	Questions	Marks
Q1	Practical	10
Q2	Practical	10
Q3	Identification	05
Q4	Journal	05
		Total: 30

B. Internal Examination: Continuous Evaluation - 20 marks

	Assessment / evaluation	Marks
1.	Project/Viva/ Field visit	15
2.	Field visit report	05
		Total 20

11 REFERENCES:

1. Gangulee Das and Dutta: College Botany Volume I and II (1994) New Central Book Agency, Calcutta (6th Edition).
2. Smith, G. M. (1990). Cryptogamic Botany Volume I (Algae & Fungi). McGraw Hill Publication, New Delhi (19th Edition).
3. Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology, John Wiley and Sons (Asia), Singapore. (4th Edition)
4. Fundamentals of Horticulture (Practical Manual): S.K. Pandey C.S. Pandey: Published by: Dean, College of Agriculture, Jabalpur Jawaharlal Nehru KrishiVishwavidyalaya Jabalpur, Madhya Pradesh482004Tele-fax:0761-2681236;web: www.jnkvv.org
5. Botany for Degree students by B. R. Vashishta (Algae, Fungi, Bryophyta)

Members of Botany Department

Sr. No	Name of the Faculty	Designation and College	Signature
1.	Dr. Lal Sahab Yadav	Head & Associate Professor Smt. CHM College, Ulhasnagar	
2	Mr. Prashant Patil	Assistant Professor Smt. CHM College, Ulhasnagar	
3	Dr. Darshana Patil	Associate Professor Smt. CHM College, Ulhasnagar	
4	Dr. Lakshmi Girish	Associate Professor Smt. CHM College, Ulhasnagar	

Name & Signature of the BoS Chairperson: DR.LALSAHAB YADAV

Name & Signature of the Dean: Dr. NEENA ANAND

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.

Semester- I

Vertical – 2

Minor Course: Not Applicable

With effect from
Academic Year 2025-2026

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.

Semester- I

Vertical - 3
Open Elective (OE) -2 Credits

With effect from
Academic Year 2025-2026

OPEN ELECTIVES (OE)

For First Year B.Sc.

(Physics, Chemistry, Mathematics, Botany, Zoology, Microbiology)

Students are required to select any one OE subject from the list below

Sr. No.	Subject Name
1.	Communicative English
2.	Performing Arts
3.	Journalism in Hindi
4.	Event Management Course in Sindhi
5.	Basic Tools of AI for Economics and Education
6.	Political Communication and Media Skills
7.	Stress Management - I
8.	Social Media and Communication
9.	Urbanization and Real Estate: Concepts and Contemporary Scenarios
10.	Business of Travel and Tours
11.	Lessons of Reel Making
12.	Basic Accounting
13.	Soft Skills for Corporate Readiness
14.	Business Statistics and SPSS
15.	Beautician : Strategic Business Planning
16.	Current Trends of Fashion Design: Financial Perspective
17.	Digital Marketing
18.	Managing Family Wealth through Family Office
19.	Online Trading in Stock Market

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.
(Botany)

Semester- I

Title: Vocational Skills in Entrepreneurial Botany

Vertical – 4
Vocational Skill Course (VSC)

Practical based -2 Credits

With effect from
AcademicYear2025-2026

Title: Vocational Skills in Entrepreneurial Botany
Course Code: CHMBOTI4

Sr. No.	Heading	Particulars
1	**Description the Course**	This course integrates botanical science with entrepreneurial thinking to explore plant-based business opportunities. Students will learn the fundamentals of plant science alongside the principles of business development, innovation, and sustainability. Topics include medicinal and aromatic plants, herbal products, floriculture, organic farming, and value-added plant products. The course emphasizes identifying marketable plant resources, developing business plans, and understanding legal and ethical aspects of plant-based enterprises. Practical case studies and project-based learning encourage students to design viable botanical ventures.
2	**Vertical 4**	VSC
3	**Type:**	Practicum
4	**Credit:**	2 Credits
5	**Hours Allotted:**	60 Hours
6	**Marks Allotted:**	50 Marks
7	**Course Objectives:** • To enable the students, understand the preparation of Kokedama, Terrarium/Bottle Garden • To enable the students, understand the making Potpourri, Bouquet and incense sticks. • To enable the students, comprehend the process of preparing herbal teas, natural dyes, organic pesticides, and composting. • To enable the students, understand the making of Preparation of *Moringa* based nutraceuticals	
8	**Learning Outcomes:** Learner will be able to; **LO1**. apply botanical knowledge in practical contexts and identify plant based business opportunities **LO2**.Understand the making of Kokedama, Terrarium/Bottle Garden Potpourri, Bouquet and incense sticks. **LO3**.Comprehend the process of preparing herbal teas, natural dyes, organic pesticides, and Composting. **LO4**.Understand the Preparation of Moringa based nutraceuticals **LO5**.Students will understand and develop sustainable and eco-friendly business models **LO6**.Integrate technology and innovation in botanical entrepreneurship	

9

Syllabus

- To prepare Kokedama.
- Preparation of Terrarium/Bottle Garden.
- Preparation of Potpourri.
- Preparation of Bouquet.
- Preparation of *Moringa* based nutraceuticals.
- Making of incense sticks.
- Making of eco-friendly articles
- Preparation of Herbal teas.
- Preparation of Natural Dyes.
- Preparation of organic pesticides.
- To study the process of Composting (Demonstration).

10

Scheme of Examination and Assessment Pattern

Paper – 50 Marks

Examination: Semester End External - 50 marks Time: 2:00 hours

Format of Question Paper

Q. No	Questions	Marks
Q1	Practical	10
Q2	Practical	10
Q3	Identification (Two Spots)	05
Q4	Journal	05
	TOTAL	**30**

B. Internal Examination: Continuous Evaluation - 20 marks

Format of Question Paper

	Assessment/ Evaluation	Marks
1.	Continuous evaluation through Project/Presentations	15
2.	Attendance/*Viva-voce*	05
	TOTAL	**20**

REFERENCE:

- Fundamentals of Horticulture (Practical Manual): S.K. Pandey C.S. Pandey: Published by: Dean, College of Agriculture, Jabalpur Jawaharlal Nehru Krishi Vishwavidyalaya Jabalpur.
- Terrariums and Kokedama: Stylish ideas/Low maintenance /Indoor planting- Alyson Mowat, Lyle Books, 2017.
- Handbook on "Natural Dyes" for Industrial Applications- Dr. Padma S. Vankar, NIIR Project Consultancy Services.

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.
(Botany)

Semester- I

Title: Tools and Techniques in Plant Science

Vertical - 4
Skill Enhancement Course (SEC)
Practical based -2 Credits

With effect from
Academic Year 2025-2026

Title: Tools and Techniques in Plant Science
Course Code: CHMBOTI5

Sr. No.	Heading	Particulars
1	**Description of the Course**	This course provides a comprehensive overview of the modern tools and techniques used in plant science research and applications. Students will gain hands-on experience and theoretical as well as practical knowledge in areas such as microscopy, chromatography, spectrophotometry, extraction of phytochemical, and analysis. The course is designed to build technical skills essential for research, industry, and advanced academic work in plant sciences
2	**Vertical 4**	SEC
3	**Type & Teaching Methods**	Theory + Practicum Lecture/Discussion/Presentation/Case study, etc.
4	**Credit:**	2 Credits
5	**Hours Allotted:**	60 Hours
6	**Marks Allotted:**	50 Marks
7	**Course Objectives:** 1. To enable students, understand the essential laboratory instruments and techniques used in plant science. 2. To enable students, estimate primary and secondary metabolites of Plants. 3. To enable students, to understand Chromatographic and Soxhlet techniques. 4. To enable the students, develop the skills of designing natural household products.	
8	**Learning Outcomes:** Learner will be able to; **LO1.** Learner will be able to understand the essential laboratory instruments and techniques used in plant science. **LO2.** Estimate primary and secondary metabolites of Plants. **LO3.** Analyze and interpret experimental data accurately **LO4.** Develop the skills of designing natural household products **LO5.** Ensure safe and ethical laboratory practices	

9

Syllabus

- Study of Basic Laboratory Instruments (Microscope, Colorimeter, Autoclave, Oven, Incubator.
- Microscopy and staining techniques: Plant Micro-technique (T.S., L.S., Whole Mounts)
- Separation of Amino Acids by Paper Chromatography
- Separation of Essential oil by Thin-Layer Chromatography
- Qualitative Tests for plant Metabolites
- Primary Metabolites: Proteins, Carbohydrates
- Secondary Metabolites: Alkaloids, Tannins
- Extraction of oil by Soxhlet apparatus (Demonstration)
- Making of household products (Incense sticks, Mosquito repellents, Dhoops)
- and Submission of any two products developed by students

10

Scheme of Examination and Assessment Pattern

Paper – 50 Marks

Examination: Semester End External - 50 marks Time: 2:00 hours

Format of Question Paper

Question No	Questions	Marks
Q1	Practical	10
Q2	Practical	10
Q3	Identification (Two Spots)	05
Q4	Journal	05
	TOTAL	**30**

B. Internal Examination: Continuous Evaluation - 20 marks

Format of Question Paper

	Assessment/ Evaluation	Marks
1.	Continuous evaluation through Project and Presentations	15
2.	Attendance/*Viva-voce*	05
	TOTAL	**20**

REFERENCE:

1. Plummer, D.T. (1996).*An Introduction to Practical Biochemistry.* Tata McGraw-Hill Publishing Co. Ltd. New Delhi. 3rd edition. Ruzin, S. E.(1999).*Plant Micro technique and Microscopy* ,Oxford University Press, New York,U.S.A adhya Pradesh482004Tele-fax:0761-2681236;web: www.jnkvv.org

Members of Botany Department

Sr. No	Name of the Faculty	Designation and College	Signature
1.	Dr. Lal Sahab Yadav	Head & Associate Professor Smt. CHM College, Ulhasnagar	
2	Mr. Prashant Patil	Assistant Professor Smt. CHM College, Ulhasnagar	
3	Dr. Darshana Patil	Associate Professor Smt. CHM College, Ulhasnagar	
4	Dr. Lakshmi Girish	Associate Professor Smt. CHM College, Ulhasnagar	

Name & Signature of the BoS Chairperson: DR. LALSAHAB YADAV

Name & Signature of the Dean: Dr. NEENA ANAND

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B. Sc.
English
(AEC- Ability Enhancement Course)

Semester- I

Title: Introduction to Communication Skills in English

Vertical - 5
AEC - 2 Credits

with effect from
Academic Year 2025-2026

Title: Introduction to Communication Skills in English
Course Code: CHMSCIAECI

Sr. No.	Heading	Particulars
1	**Description of the Course:**	Effective communication is the cornerstone of academic and professional success. This course introduces learners to foundational skills in English communication, with a focus on both oral and written competencies essential in academic, social, and workplace contexts. It aims to equip learners with the ability to read critically, write precisely, speak confidently, and listen actively. Emphasis is placed on building clarity, coherence, and conciseness in communication, along with an understanding of audience, purpose, and tone. The course integrates grammar reinforcement, vocabulary building, reading comprehension, and practice-oriented modules such as email etiquette, group discussion, and formal writing. Through dynamic classroom interactions and practical assessments, learners will gain confidence in using English effectively and purposefully.
2	**Vertical 5**	AEC- Ability Enhancement Course
3	**Type**	Theory+ Tutorial (Teaching Methods: Lecture/ Discussion/ Presentation/ Reading sessions/ Worksheets/ Listening to audio clips etc.)
4	**Credit**	2 Credits
5	**Hours allotted**	30 Hours
6	**Marks allotted**	50 Marks
7	**Course Objectives:** 1. To introduce students to the fundamentals of effective communication and its components. 2. To enhance students' reading comprehension through exposure to multiple genres and contexts. 3. To develop grammatical accuracy and lexical resourcefulness for academic and professional communication. 4. To strengthen verbal and non-verbal presentation skills and promote interactive speaking abilities. 5. To build competence in real-world writing tasks such as email drafting, bio-data preparation, and descriptive writing.	

8	**Learning Outcomes**: Students will be able to **LO-1:** Understand and apply key principles of effective communication in varied contexts. **LO-2:** Comprehend and analyze written texts using appropriate reading strategies. **LO-3:** Recognize and correct common grammatical and lexical errors. **LO-4**: Engage in clear, confident, and context-appropriate spoken interactions. **LO-5**: Produce structured, coherent, and grammatically correct written content for academic and workplace use.
9	**Syllabus** **UNIT I: Foundations of English Communication** **A) Core Concepts of Communication** • Principles of Effective Communication: The 7 Cs • Verbal and Non-verbal Communication with Examples • Cross-cultural Communication in the Globalized World • Technology in Communication: Email, Messaging, Video Conferencing • Listening for Detail and Intent: Barriers to Listening and Strategies **B) Reading Comprehension** • Understanding the Main Idea and Supporting Details • Interpreting Tone, Purpose, and Bias • Using Context Clues for Vocabulary Building • Reading Visual Texts: Graphs, Charts, and Infographics *Sample readings will include excerpts from news articles, reports, editorials, and educational essays (200–250 words).* **C) Grammar and Vocabulary** • Subject-Verb Agreement • Sentence Structures • Punctuation and Capitalization • Commonly Confused Words • Editing and Proofreading Practice *A remedial and functional approach will be followed with contextual exercises.* **UNIT II: Applied Communication Skills** **A) Speaking and Listening Skills** • Introducing Oneself in Academic/Professional Settings • Participating in Group Discussions and Expressing Opinions • Delivering a Short Speech (2–3 minutes) on Familiar Topics • Understanding and Responding to Instructions • Listening Comprehension Practice through Audio/Video Clips

B) Functional Writing Skills

- Formal Email Writing with Subject and Tone Sensitivity
- Descriptive Paragraph Writing (People, Places, Processes)
- Bio-data and Resume Writing
- Drafting Job Applications (Solicited and Unsolicited)
- Writing a Statement of Purpose

10

Scheme of Examination and Assessment Pattern

Paper – 50 Marks

External Examination: Semester End External - 30 marks Time: 1:00 hour

Format of Question Paper

Question No	Nature of Questions	Marks
Q. 1	Short Notes (2 out of 4) Unit – I (A) – Principles and Types of Communication	10
Q. 2 (A)	Reading Comprehension – Unseen Passage (200–250 words) Unit –I (B)	06
Q. 2 (B)	Grammar – Error Correction, Transformation of Sentences (Unit- I - C)	04
Q. 3	Formal Writing Task (1 out of 2 choices) – Email, Resume, SoP, etc. (Unit – II -B)	10
	Total	**30**

Internal Examination: Continuous Evaluation - 20 marks

	Assessment / evaluation	Marks
1.	**Activity-Based Assessment – Presentation or Conversation Skills:** Individual or group task based on Unit 2(A). Scheduled and assessed during regular class hours.	05
2.	**Participation in One Additional Classroom Activity:** Activity may include listening to audio clips, reading aloud, group discussion, summarizing, or vocabulary building.	05
3.	**Attendance and Overall Engagement:** Attendance as per institutional norms, along with active participation in class discussions and tasks.	05
4.	**Short Writing Task (Descriptive Paragraph, Email, or SOP extract):** Based on Unit 2(B); to be completed as a classroom assignment or home submission	05
	Total	**20**

11

REFERENCES:

1. Adler, Ronald B., et al. *Understanding Human Communication.* 15th ed., Oxford UP, 2021.
2. Bailey, Stephen. *Academic Writing: A Handbook for International Students.* 5th ed., Routledge, 2018.

3. Barrass, Robert. *Students Must Write: A Guide to Better Writing in Coursework and Examinations*. Routledge, 2005.
4. Brown, Gillian, and George Yule. *Teaching the Spoken Language: An Approach Based on the Analysis of Conversational English*. Cambridge UP, 1983.
5. Carnegie, Dale. *The Quick and Easy Way to Effective Speaking*. Pocket Books, 2006.
6. Chaney, Lillian, and Jeanette Martin. *Intercultural Business Communication*. 6th ed., Pearson, 2014.
7. Cullen, Pauline, et al. *English Grammar in Use Supplementary Exercises*. Cambridge UP, 2019.
8. Eastwood, John. *Oxford Guide to English Grammar*. Oxford UP, 2005.
9. Gerson, Sharon J., and Steven M. Gerson. *Technical Communication: Process and Product*. 9th ed., Pearson, 2021.
10. Hewings, Martin. *Advanced Grammar in Use: A Self-study Reference and Practice Book for Advanced Learners of English*. 3rd ed., Cambridge UP, 2013.
11. Jones, Leo. *Functions of English: Communication Practice in English*. Cambridge UP, 1981.
12. Kumar, Sanjay, and Pushp Lata. *Communication Skills*. 2nd ed., Oxford UP, 2018.
13. Lynch, Tony. *Listening in Language Learning*. Longman, 1988.
14. McCarthy, Michael, and Felicity O'Dell. *Academic Vocabulary in Use*. Cambridge UP, 2008.
15. Nordquist, Richard. *The Essentials of English Grammar*. McGraw-Hill Education, 2016.
16. Quirk, Randolph, et al. *A Comprehensive Grammar of the English Language*. Longman, 1985.
17. Seely, John. *The Oxford Guide to Writing and Speaking*. Oxford UP, 2005.
18. Straus, Jane, et al. *The Blue Book of Grammar and Punctuation*. 12th ed., Jossey-Bass, 2021.
19. Wallace, Catherine. *Reading*. Oxford UP, 1992.
20. Zinsser, William. *On Writing Well: The Classic Guide to Writing Nonfiction*. Harper Perennial, 2016.

Department of English:

Sr. No	Name of the Faculty	Designation and College	Signature
1.	Prof. (Dr.) Pratima Das	Head & Professor, Dept. of English, Smt. CHM College	
2.	Prof. (Dr.) Kailas Aute	Professor, Dept. of English, Smt. CHM College	
3.	Mr. Ananda Pandhare	Asst. Professor, Dept. of English, Smt. CHM College	
4.	Ms. Sana Karale	Asst. Professor, Dept. of English, Smt. CHM College	

Name & Signature of the Ad hoc BoS Chairperson: Prof. (Dr). Pratima Das

Name & Signature of the Dean: Prof. (Dr). Pratima Das

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year

Semester- I

Title: Communication Skills in Sindhi

Vertical - 5
Ability Enhancement Course - 2 Credit

with effect from
Academic Year 2025-2026

Title: Communication Skills in Sindhi
COURSE CODE: CHMSINAECI

Sr. No.	Heading	Particulars
1	**Description the Course:**	Sindhi communication skills (B.Com.) Communication is the core component of the commerce and trade. In communication, language plays very significant role. If a student has mastered the skills of language, undoubtedly, he or she would be able to communicate in the best manner. In this course basic part of Sindhi language would be taught based on the NEP 2020. The innovative approach likes critical thinking, creative mind, use of technology will lead to communicating and participating with the different groups. The vocabulary section would be given prominence. The course would be in the Devanagari script so that it can attract majority of the students. Even non-Sindhi students shall have opportunity to adopt this course.
2	**Vertical 1**	AEC – Ability Enhancement Course
3	**Type**	Theory+ Practicum (Teaching Method: Lecture/ Discussion/Reading)
4	**Credit**	2 credits (1 credit = 15 hours for theory or 30 hours of Practical work in a semester)
5	**Hours allotted**	30 Hours
6	**Marks allotted**	50Marks (50 Marks each)
7	**Course Objectives**: After successful completion of this course: 1. The learner will get understanding of communication skills. 2. The learner will understand how to accurate the pronunciation of special words in Sindhi 3. The learner will improve the conversation skill in Sindhi. 4. The learner will become best communicator in Sindhi language	
8	**Learning Outcomes**: Student will be able to **LO1**: Know the basic special features of Sindhi language. **LO2**: Understand the skills of communication. **LO3**: Knowing the conversation with businessmen and customers **LO4**: Know the etiquettes with parents, relatives, friends and others in effective way	

Syllabus

Unit I – Fundamental of Sindhi Communication

- Introduction of Communication skill through Pictorial Presentation
- Importance of Language
- Basic aspects of language
  i) Types of Language, ii) Role of Language, iii) Changes in Language
  iv) Non-violent aspects of language v) Language & New generation
  vi) Language & Modern Technology
- New Education Policy (NEP) & Importance of language
- Sindhi language: (Special features of spoken Sindhi language with pronunciation through audio visual presentation

Unit II – Functional Communication

- Importance of Communication
- Types of Communication (Presentation through video clips)
  i) Verbal, ii) Non-verbal, iii) Written iv) Digital Communication
- Characteristics of Communication
- Obstacles in Communication of Sindhi Language
- Methods of Best Communication through role plays
- Spoken Sindhi in Business
- Conversation with customers and proprietors

यूनिट – 1

- स्मचारी भाषा : वाक्फियत
- भाषा जी अहिमियत
- भाषा जा बुनियादी पहलु
  i) किस्म, ii) भाषा जो किरदार, iii) भाषा मे तबदीलियूं iv) भाषा जा अहिसासाती पहलू v) भाषा ऐं नई नसल
- नई तैलीमी नीति ऐं बोलियुन जी अहमियत
- असां जी सिंधी बोली

यूनिट – 2

- राबते जी अहमियत
- राबते जा किस्म
  i) जिबानी राबतो, ii) गैर जिबानी राबतो, iii) लिख्त राबतो iv) डिजीटल राबतो
- राबते मां फायदा
- राबते में रंडकूं
- बेहतर राबते जा तरीका
- ग्राहकन सां सिंधी बोलीअ मे गुफ्तगू

10

Scheme of Examination and Assessment Pattern

Paper – 50 Marks

External Examination: Semester End External - 30 marks Time: 1:00 hour

Format of Question Paper

Attempt any 4 out of 6 questions.

Question No	Nature of Questions	Marks
Q1.	Objective Type – Fill in the Blanks / MCQs (Unit I0	15
Q2.	Question on reading skill (Unit II)	07
Q3.	Writing short story from outlines (Unit II)	08
		Total 30

Note:

1. Equal Weightage is to be given to all the modules.
2. Use of non-programmable scientific calculator is allowed in the examination.

Internal Examination: Continuous Evolution - 20 marks

	Assessment / evaluation	Marks
1.	**Speaking Activities: (Presentation)** Making presentations in the classroom	10
2.	**Listening Activities: (Assignment)** Listening to speeches, dialogues, announcement and summarizing them	10
	Total	**20**

11

REFERENCE BOOKS:

1. Sanchari Basha – By Dr. Pushpa Kodwani
2. Sindhi Pahakaa – Dr. Jetly M.K.
3. Sindhi Muhavahra – By Hardwani Lachhman
4. Sindhi Adhyat mak Shabdhkesh – By Hardwani Lachhman
5. Acho Sindhi Sikhu – By Hardwani Lachhman

Syllabus Committee:

Sr No	Name of the Faculty	Designation and College	Signature
1.	Mrs. Kajal Ramchandani	H.O.D. of Jai Hind College	Kajal
2.	Mrs. Komal Totani	Assistant Teacher, Smt. CHM College	

Name & Signature of the BoS Chairperson: (Mrs. Kajal Ramchandani) Kajal

Name & Signature of the Dean: (Dr. Pratima Das) Pratima Das

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year

Semester- I

Title: Environmental Management and Sustainable Development-I

Vertical - 5
VEC- 2 Credits

with effect from
Academic Year 2025-2026

Title: Environmental Management and Sustainable Development-I

Course Code: CHMVECI

Sr. No.	Heading	Particulars
1	**Description of the Course:**	This course introduces students to the basics of environmental management and sustainable development. It explains how ecosystems work, the importance of biodiversity, and the need to protect our natural resources. Students will learn about different environmental problems, human impact on nature, and how to manage disasters. The course also covers Indian environmental movements, ethics, and the role of public awareness. Real-life examples and case studies help students understand the connection between nature and human communities in a simple and practical way.
2	**Vertical 5**	VEC
3	**Type & Teaching methods**	Theory + Practicum Lecture/Discussion/Presentation/Case study,etc
4	**Credits**	2 Credits
5	**Hours allotted**	30 Hours
6	**Marks allotted**	50 Marks
7	**Course Objectives:** 1. To introduce about ecosystems, biodiversity and to make aware for the need of conservation. 2. To sensitize students towards environmental concerns, issues, and impacts of human population. 3. To analyze the impact of human population growth and development activities on the environment, including issues related to displacement, disaster response, and rehabilitation. 4. To foster awareness of environmental ethics and the role of cultural and social movements in shaping sustainable environmental practices through communication, policy, and activism.	
8	**Learning Outcomes**: Students will be able to **LO1:** Explain the interrelationships within ecosystems and analyze energy flow and succession, using examples from various ecological zones. **LO2:** Critically evaluate biodiversity levels and conservation strategies, applying knowledge of endemic species, threats, and ecological services to real-world scenarios. **LO3:** Assess the socio-environmental implications of population growth, displacement, and disasters, incorporating case studies to understand sustainable development challenges.	

	LO4: Demonstrate an understanding of environmental ethics and advocacy, by interpreting the influence of cultural values, environmental movements, and communication strategies on sustainability.
9	**Syllabus** **UNIT I: Ecosystems, Biodiversity and Conservation** • Introduction, structure, and function of ecosystems; Energy flow: food chains, food webs and ecological succession. Case studies of the following: a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) • Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns • India as a mega-biodiversity nation; Endangered and endemic species of India • Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. • Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value **UNIT II: Human Communities and the Environment** • Human population growth: Impacts on environment, human health and welfare. • Resettlement and rehabilitation of project affected persons; case studies. • Disaster management: floods, earthquake, cyclones and landslides. • Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan. • Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. • Environmental communication and public awareness, case studies (e.g. CNG vehicles in Delhi).
10	**Assessment Pattern** **Scheme of Examination and Assessment Pattern** Paper – 50 Marks **External Examination: Semester End External - 30 marks Time: 1:00 hours** Format of Question Paper **Attempt any 3 out of 4 questions.**

Question No.	Nature of Questions	Marks
Q.1	Theory based on Unit I	10
Q.2	Theory based on Unit I	10

Q.3	Theory based on Unit II	10
Q.4	Theory based on Unit II	10
		Total 30

Internal Examination: Continuous Evaluation - 20 marks

	Assessment / evaluation	**Marks**
1.	Class Test, Creative writing/visits/role play (Short notes/ MCQ's/ Match the Pairs/ Answer in one sentence/ Quiz)	10
2.	Project /Presentation / Viva/Group Discussion/Case study	10
		Total 20

11 **REFERENCES :**

1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.
4. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
6. Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
7. Warren, C. E. 1971. Biology and Water Pollution Control. WB Saunders.
8. Wilson, E. O. 2006. The Creation: An appeal to save life on earth. New York: Norton.
9. Harper, Charles L. (2017) Environment and Society, Human Perspectives on Environmental Issues 6th Edition. Routledge.
10. Rajagopalan, R. (2011). Environmental Studies: From Crisis to Cure. India: Oxford University Press.
11. Harris, Frances (2012) Global Environmental Issues, 2nd Edition. Wiley- Blackwell.

Name & Signature of the Dean &Ad-hoc BoS Chairperson (Interdisciplinary):

Dr. Nitin Arekar

Smt. Chandibai Himathmal Mansukhani College
(Autonomous)

First Year B.Sc.

Semester- I

Vertical - 6
CC – Not Applicable