

**Curriculum for MD/ MS Ayurveda  
(PRESCRIBED BY NCISM)**

**अभ्यासात्प्राप्यते दृष्टिः कर्मसिद्धिप्रकाशिनी ।**

**Semester II**

**Applied Basics of Ayurveda Samhita and Siddhanta**

**(Compendium and Basic Principles)**

**(SUBJECT CODE : AYPG-AB-SS)**

**(Applicable from 2024-25 batch, from the academic year 2024-25 onwards until further  
notification by NCISM)**



**आयुषे सर्वलोकानाम्**



**BOARD OF AYURVEDA  
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE  
NEW DELHI-110026**

## Preface

The postgraduate syllabus for MD in Ayurveda Samhita and Siddhanta has been designed to align with the vision of the National Education Policy (NEP), emphasizing deep learning, interdisciplinary integration, and practical application of Ayurvedic principles. This foundational paper serves as a preparatory phase providing a robust background for the core papers in subsequent phases of the program. It aims to equip learners with the necessary knowledge and skills to navigate the complex cognitive processes required for advanced studies.

The primary competency for a postgraduate in Samhita and Siddhanta is the ability to read, comprehend, and interpret the profound knowledge encoded within classical Ayurvedic texts (Samhitas). To achieve this, mastery of Sanskrit is essential for accurately deciphering the meanings of verses. A comprehensive understanding of the historical development of Ayurveda is also critical for contextualizing the knowledge and its evolution. Additionally, the exploration of manuscripts and manuscriptology is indispensable for engaging with the rich textual heritage of Ayurveda.

The syllabus emphasizes methodical learning through classical techniques, including teaching, reasoning, and research methods. It also incorporates tools for interpreting implicit and nuanced meanings of verses, such as Tantrayukti and Nyaya. The research component focuses on innovative areas, including terminology studies, and translational research, fostering a dynamic approach to traditional knowledge systems.

This curriculum aspires to move beyond rote textual comprehension, encouraging students to achieve higher-order competencies. By integrating a layered approach and providing an in-depth exploration of Ayurveda's extensive literary corpus, this syllabus represents a progressive evolution in Ayurvedic education. It prepares scholars to become adept interpreters, clinicians, researchers, and innovators, blending traditional wisdom with contemporary relevance to advance the field of Ayurveda.

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We want that education by which **character** is formed, **strength of mind** is increased, the **intellect** is expanded, and by which one can **stand on one's own feet**.

*-Swami Vivekananda*



**NCISM**  
**(NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE)**  
**Curriculum for MD/ MS Ayurveda**

**Applied Basics of Ayurveda Samhita and Siddhanta (AYPG-AB-SS)**  
**Summary & Credit Framework**  
**Semester II**

<b>Module Number &amp; Name</b>	<b>Credits</b>	<b>Notional Learning Hours</b>	<b>Maximum Marks of assessment of modules (Formative assessment)</b>
M 1. Evolution of Ayurveda: From early stages to contemporary	3	90	75
M 2. Applied Sanskrit	3	90	75
M 3. Manuscriptology & Textual Criticism	2	60	50
M 4. Classical methods of Teaching and Learning	2	60	50
M 5. Classical methods of interpretation of Samhita	2	60	50
M 6. Samhita Oriented Research	2	60	50
M 7. Translational Ayurveda	2	60	50
	16	480	400

**Credit frame work**

AYPG-AB-SS consists of 7 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

**Important Note:** The User Manual MD/MS Ayurveda is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding the curriculum, write to [syllabus24ayu@ncismindia.org](mailto:syllabus24ayu@ncismindia.org).

## Course Code and Name of Course

Course code	Name of Course
AYPG-AB-SS	Applied Basics of Ayurveda Samhita and Siddhanta

**Table 1 : Course learning outcomes and mapped Program learning outcomes**

CO No	A1 Course learning Outcomes (CO) AYPG-AB-SS At the end of the course AYPG-AB-SS, the students should be able to	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Analyze and interpret the fundamental principles (Maulika-siddhanta) of Ayurveda in the context of Indian philosophical traditions.	PO1,PO3,PO7
CO2	Evaluate the evolution and development of Ayurveda from the Pre-Vedic period to the Brihattrayee, including contributions from medieval and contemporary Ayurvedic literature.	PO1,PO7
CO3	Demonstrate proficiency in using classical and contemporary teaching methodologies, including Ashtaprashna, Trividha-upaya, Vadamarga, and Pareeksha, for knowledge transmission in real-world clinical settings.	PO1,PO3,PO5,PO6,PO8
CO4	Apply, techniques of linguistics and interpretation such as Vyakarana, Tantraguna (Tantrayukti, Tacchilya ), Samhitokta-Nyaya and Vyakhya to elicit the implicit and unstated meanings of sutra of Samhita.	PO1,PO7
CO5	Plan and conduct Samhita-oriented Research comprising manuscriptology, content editing, content development, tool development and terminology; for literary and translational research grounded in the principles and practices of Ayurveda	PO1,PO3,PO5,PO7
CO6	Apply siddhanta with respect to tri-sutra related to swasthatura and evaluate them in diagnosis, prognosis and management of diseases through clinical methods depicted in Samhita texts	PO1,PO2,PO7
CO7	Evaluate major principles encoded in Samhita texts with respect to their significance in the contemporary biomedical and global healthcare context.	PO1,PO3,PO7,PO8
CO8	Develop deeper sense of ethics, professionalism, morality and purposefulness as a Vaidya and humane, in comparison with contemporary life style, codes and conducts.	PO4,PO6,PO8

**Table 2 : Course contents (Modules- Credits and Notional Learning Hours)**

2A Module Number	2B Module & units	2C Number of Credits	Notional Credit hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including modular assessment	2G Total
1	<p><b>M-1 Evolution of Ayurveda: From early stages to contemporary</b></p> <p>This module deals with the historical evolution of Ayurveda, tracing its roots from the pre-Vedic or prehistoric era to the present day. Beginning with early primitive medical practices, it explores how Ayurveda emerged as a distinct and independent science. The module analyzes key trends, individuals, events, and literary works from various periods that have shaped and sustained the growth of Ayurveda. It also attempts to define significant historical trends crucial for understanding the evolution of the discipline. In addition, it highlights the diversity of Ayurvedic literature and explores its interactions with other medical systems over time. The role of archaeological findings is also emphasized, illustrating their contribution to the historical foundations of Ayurveda.</p> <ul style="list-style-type: none"> <li>• <b>M1.U1</b> Stages of development of Ayurveda               <ol style="list-style-type: none"> <li>1. Stages of development: Different opinions</li> <li>2. Pre-Vedic, Vedic, Samhita Kala, Sangraha Kala and Adhunika Kala: Fixing the periods</li> <li>3. Characteristics and development of Shastra, Tantra, and Vidya in India and comparison with Ayurveda</li> </ol> </li> <li>• <b>M1.U2</b> Early stage of development of Ayurveda               <ol style="list-style-type: none"> <li>1. Evidence of healthcare practices in the pre-Vedic and pre-historic periods</li> </ol> </li> </ul>	3	15	30	45	90

	<ol style="list-style-type: none"> <li>2. Health care during the Indus Valley Civilization</li> <li>3. Medical practices in Vedic literature</li> <li>4. Ancient health care practices: Atharvini, Angirisi, Daivi, Manushi</li> <li>5. Daiva-vyapasraya chikitsa: Its dominance</li> </ol> <ul style="list-style-type: none"> <li>• <b>M1.U3</b> Evolution of Ayurveda during Samhita-kala (Prachina kala) <ol style="list-style-type: none"> <li>1. Eminent scholars of Samhita Kala</li> <li>2. Philosophical synergy of Ayurveda and Darshanas</li> <li>3. Philosophical synergy of Ayurveda and Buddhism</li> <li>4. Branching of Ayurveda</li> <li>5. Stages of evolution of Samhitas</li> <li>6. Samhitas in different branches</li> <li>7. Interaction with Greek tradition</li> </ol> </li> <li>• <b>M1.U4</b> Status of Ayurveda during Sangraha-kala (Madhya kala) <ol style="list-style-type: none"> <li>1. Acharyas of Sangraha-kala</li> <li>2. Gross differences from Samhita-kala</li> <li>3. Advancements in Rogavinjana, Bhaishajya Kalpana, Rasashastra, Dravyaguna and Chikitsa</li> <li>4. Nature of sangraha granthas</li> <li>5. Comparison of different forms of literature in Ayurveda, such as Samhita, Sutra, Bhashya, Sangraha, Nighantu, Kosha, Teeka, Vyakhya and Tippani</li> </ol> </li> <li>• <b>M1.U5</b> Status of Ayurveda during Modern age (Adhunika kala) <ol style="list-style-type: none"> <li>1. Eminent scholars in modern age such as Gananatha sen, Yogendranath Sen, Gangadhara Rai, K N Udupa, and P V Sarma.</li> <li>2. Influence of colonial rule on Ayurveda during pre-Independent period</li> <li>3. Formation of different committees such as Health Survey and Development Committee-Bhor, Chopra Committee, Pandit Committee, Dave Committee, Udupa Committee and Vyas Committee</li> </ol> </li> </ul>					
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	<ol style="list-style-type: none"> <li>4. Post-independent revival activities - formation of councils, institutions, AYUSH ministry</li> <li>5. Ayurveda in the global context: Reach, Relevance and Revival</li> <li>6. The World Health Organization (WHO) initiative in recognizing Ayurveda</li> <li>7. Efforts for an integrated approach</li> <li>8. Advancements in Research activities</li> <li>9. Advancements in the education sector relevant to Ayurveda</li> </ol> <ul style="list-style-type: none"> <li>• <b>M1.U6</b> Ayurveda and other systems of medicine <ol style="list-style-type: none"> <li>1. Basic doctrines of different systems Siddha, Naturopathy, Unani and Sowaigpa</li> <li>2. Relationship between different systems of medicine and Ayurveda</li> </ol> </li> <li>• <b>M1.U7</b> Archeological evidences of Ayurveda <ol style="list-style-type: none"> <li>1. History of Indian archaeology and its relevance to Ayurveda</li> <li>2. Understanding of artefacts, petroglyphs, and pictographs related to Ayurveda</li> <li>3. Various methods used in archaeology along with basic knowledge of techniques such as carbon dating and enstampage and their utility in Ayurveda</li> <li>4. Primary and secondary evidence related to archaeology and their relevance to Ayurveda; Knowledge of important primary evidence relating to Ayurveda such as rock edicts of Ashoka</li> </ol> </li> </ul>					
2	<p><b>M-2 Applied Sanskrit</b></p> <p>This module prepares a scholar with essential Sanskrit applications for reading, comprehending, and interpreting sutras in samhitas. It includes understanding and applying linguistic methods to derive the proper meaning of verses in the samhita.</p>	3	15	30	45	90



	<ul style="list-style-type: none"> <li>• <b>M2.U1</b> Applied Sanskrit 1 <ul style="list-style-type: none"> <li>○ Pratipadika, Pada/Shabda roopa, linga, vachana, Avyaya, Nirukti &amp; Vyutpatti</li> </ul> </li> <li>• <b>M2.U2</b> Applied Sanskrit 2 <ul style="list-style-type: none"> <li>○ Karaka, Vibhakti, Upapada vibhakti, Prayoga (Kartari, Karmani)</li> </ul> </li> <li>• <b>M2.U3</b> Applied Sanskrit 3 <ul style="list-style-type: none"> <li>○ Upasarga, Kriyapada and Pratyaya (Tinganta/lakara, kridanta/Kriya/ Stree, Taddhita, Sanadi/Nijanta)</li> </ul> </li> <li>• <b>M2.U4</b> Applied Sanskrit 4 <ul style="list-style-type: none"> <li>○ Sandhi and Samasa.</li> </ul> </li> <li>• <b>M2.U5</b> Applied Sanskrit 5 <ul style="list-style-type: none"> <li>○ Chhanda</li> </ul> </li> <li>• <b>M2.U6</b> Applied Sanskrit 6 <ul style="list-style-type: none"> <li>○ Prakrutartha/Shabdanyatva/Paryaya naama/Referring the Kosha</li> </ul> </li>   <li>• <b>M2.U7</b> Applied Sanskrit 7 <ul style="list-style-type: none"> <li>○ Shloka Pathana vidhi (Samhita Patha, Pada Patha)</li> </ul> </li> <li>• <b>M2.U8</b> Applied Sanskrit 8 <ul style="list-style-type: none"> <li>○ Anvaya (Pada ccheda/vibhaga, Dandanvaya, Khandanvaya, Visheshana-visheshya etc)</li> </ul> </li> <li>• <b>M2.U9</b> Applied Sanskrit 9 <ul style="list-style-type: none"> <li>○ Mula Grantha Avabodha through Vyakarana anushthana</li> </ul> </li> <li>• <b>M2.U10</b> Applied Sanskrit 10 <ul style="list-style-type: none"> <li>○ Vyakhyana Avabodha through Vyakarana anushthana</li> </ul> </li> <li>• <b>M2.U11</b> Applied Sanskrit 11 <ul style="list-style-type: none"> <li>○ Translation and Editing skills</li> </ul> </li> <li>• <b>M2.U12</b> Applied Sanskrit 12</li> </ul>					
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	<ul style="list-style-type: none"> <li>○ Writing and Speaking Skills (Basics of Composing a new text and writing/narrating commentary)</li> </ul>					
3	<p><b>M-3 Manuscriptology &amp; Textual Criticism</b></p> <p>This module introduces postgraduate students to the critical study of manuscripts, focusing on Ayurvedic texts. Manuscriptology, as a discipline, involves the identification, preservation, and deciphering of ancient manuscripts, while textual criticism aims to restore the original content by analyzing variations in different manuscripts along with different sources including digital. The study of these manuscripts helps scholars trace the evolution of texts and understand their historical context and variations. This module will provide learners with developing understanding of the critical methods necessary to evaluate textual authenticity. The application of these methods will enable students to engage in Samhita-based research and contribute to the dissemination of Ayurvedic knowledge.</p> <ul style="list-style-type: none"> <li>• <b>M3.U1</b> Introduction to Manuscriptology <ol style="list-style-type: none"> <li>1. Definition of manuscript</li> <li>2. Importance of manuscript study</li> <li>3. Manuscript wealth of Ayurveda</li> <li>4. Important manuscript centres and libraries</li> <li>5. Sources of digital manuscripts</li> </ol> </li> <li>• <b>M3.U2</b> Primary steps in manuscriptology <ol style="list-style-type: none"> <li>1. Collection</li> <li>2. Conservation</li> <li>3. Cataloguing</li> <li>4. Introduction to digital catalogues</li> </ol> </li> <li>• <b>M3.U3</b> Steps in editing manuscripts <ol style="list-style-type: none"> <li>1. Transcription</li> <li>2. Translation</li> </ol> </li> </ul>	2	10	20	30	60

	<p>3. Heuristics, recension and emendation</p> <ul style="list-style-type: none"> <li>• <b>M3.U4</b> Textual criticism <ol style="list-style-type: none"> <li>1. Critical analysis of manuscripts</li> <li>2. Higher criticism</li> <li>3. Lower criticism</li> <li>4. Critical edition</li> <li>5. Publication of edited manuscripts.</li> </ol> </li> </ul>					
4	<p><b>M-4 Classical methods of Teaching and Learning</b></p> <p>This module introduces postgraduate students to the foundational principles of teaching and learning as described in the Samhitas, particularly focusing on the Adhyayana–Adhyāpana Vidhi. It covers classical methods such as systematic exposition, techniques of interpretation, and the structured use of debates and analogies in knowledge transmission. Learners will explore key terms and frameworks used in traditional pedagogy and analyze their instructional value. The module also offers a comparative lens to evaluate how these classical methods align or contrast with modern educational strategies. Through this, students will gain insight into how traditional Ayurvedic teaching techniques can inform and enrich current pedagogical practices.</p> <ul style="list-style-type: none"> <li>• <b>M4.U1</b> Teaching and Learning methodology available in Samhita <ol style="list-style-type: none"> <li>1. Trividha Gyanopaya</li> <li>2. Shastra Lakshana</li> <li>3. Adhyayana Vidhi(Method of learning)</li> <li>4. Patha, Avabodha, Anushthana</li> <li>5. Eight segments to be learned in Ayurveda (Ashtaprashna)</li> <li>6. Adhyapana Vidhi (Method of Teaching)</li> <li>7. Guru and Shishya Lakshana</li> </ol> </li> </ul>	2	10	20	30	60

	<p>8. Tadvidya Sambhasha (colloquium) 9. Sambhasha parishats in Charaka Samhita</p> <ul style="list-style-type: none"> <li>• <b>M4.U2</b> Classical teaching <ul style="list-style-type: none"> <li>1. Teaching of Pada, Paada, Shloka Vakya, Vakyaartha and Arthavayava</li> </ul> </li> <li>• <b>M4.U3</b> Techniques of interpretation <ul style="list-style-type: none"> <li>1. Tatcchilya</li> <li>2. Kalpana- Pradhanasya, Pradhanen, Guna, Lesha, Vidya, Bhakshya, Ajnya</li> <li>3. Arthashraya</li> </ul> </li> <li>• <b>M4.U4</b> Debate and its terms (Vada &amp; Vadamarga) <ul style="list-style-type: none"> <li>1. Vada and its types</li> <li>2. Analyse and interpret 44 technical terms related to Vadamarga as per Charaka Samhita</li> </ul> </li> <li>• <b>M4.U5</b> Comparison of Teaching Learning Practices in Samhita - with contemporary methods <ul style="list-style-type: none"> <li>1. Smriti hetus (Ashta)in learning</li> <li>2. Oral method</li> <li>3. Inquiry method</li> <li>4. Temporizing method</li> <li>5. Discovery method</li> <li>6. Demonstration method</li> <li>7. Instructional analogy</li> <li>8. Problem-based approach</li> </ul> </li> </ul>					
5	<p><b>M-5 Classical methods of interpretation of Samhita</b></p> <p>Classical methods of interpretation includes use of Tantrayukti, Tantraguna, Tacheelyadi, Nyaaya etc. in understanding Samhitas. The study of Tantrayukti is essential for the accurate and systematic interpretation of Ayurvedic Samhitas, as it helps in revealing the implied or subtle meanings that are often encoded within these classical texts. While learners may have been introduced to the importance of</p>	2	10	20	30	60

	<p>Tantrayukti during their undergraduate studies, this module will take them to a higher level of application. It will provide an advanced understanding of Tantrayukti and its role in interpretation, while also incorporating a detailed examination of related concepts such as Tantragunas, Tachilyadi, Arthasraya, Kalpana, and others. Through this module, learners will be equipped with the skills necessary to delve deeper into the intricate structure and logic of the Samhitas. This will enhance their ability to decode complex ideas, identify underlying patterns, and apply these insights in the interpretation of core Ayurvedic texts. In essence, this module aims to prepare learners to perform advanced textual interpretation and to effectively apply these principles in understanding the core papers of their study.</p> <ul style="list-style-type: none"> <li>• <b>M5.U1</b> Tantrayukti - basic description <ol style="list-style-type: none"> <li>1. Exploring Tantrayukti as an interpretive method of Samhitas</li> <li>2. Need of Tantrayukti in understanding Samhitas</li> <li>3. Description, comparison and classification from various sources</li> </ol> </li> <li>• <b>M5.U2</b> Application of Tantrayukti - 1 <ol style="list-style-type: none"> <li>1. Use of Tantrayukti in the review process</li> <li>2. Clinical application of Tantrayukti</li> </ol> </li> <li>• <b>M5.U3</b> Application of Tantrayukti - 2 <ol style="list-style-type: none"> <li>1. Research application of Tantrayukti</li> <li>2. Tantrayukti as a tool to elicit anukta-lesokta aspects of Samhitas</li> </ol> </li> <li>• <b>M5.U4</b> Tantraguna <ol style="list-style-type: none"> <li>1. Definitions and classification of Tantraguna</li> <li>2. Identification of Tantraguna in Samhitas</li> <li>3. Applications of Tantraguna</li> </ol> </li> <li>• <b>M5.U5</b> Introduction to Tantradosha <ol style="list-style-type: none"> <li>1. Definitions and classification of Tantradosha</li> <li>2. Identification of Tantradosha</li> <li>3. Application (How to eliminate Tantradosha)</li> </ol> </li> </ul>				
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	<ul style="list-style-type: none"> <li>• <b>M5.U6</b> Exploration of Nyaya <ol style="list-style-type: none"> <li>1. Types and Importance</li> <li>2. Description of Samhitokta-Nyaya</li> <li>3. Illustration in Samhitas</li> </ol> </li>   <li>• <b>M5.U7</b> Application of Nyaya <ol style="list-style-type: none"> <li>1. Importance in the learning process</li> <li>2. Utility in physiology, psychology, diagnosis and therapeutics</li> </ol> </li> </ul>					
6	<p><b>M-6 Samhita Oriented Research</b></p> <p>This module explores the epistemological foundations of research in Ayurveda, drawing from classical sources such as Nyāyadarśana and the Samhitas. It emphasizes Jijñāsā—the spirit of inquiry—as the starting point of research and demonstrates how concepts like Shodasha Tattva, Pramāṇa, and Parīkṣā can guide the entire research process. Learners will understand the utility of Pratyakṣa, Anumāna, Upamāna, Āptopadeśa, and Yukti in formulating research questions, designing methodologies, and interpreting findings. Classical approaches like Aushadha, Roga-Rogī, Yogapareekṣa, and Dhātu Samya examinations will be studied as prototypes for research design. The module also focuses on the communication of research outcomes using Ayurvedic tools such as Pañcāvayava Vākya and Tantrayukti, providing students with traditional frameworks for presenting and reporting scholarly work.</p> <ul style="list-style-type: none"> <li>• <b>M6.U1</b> Jijnasa : The path of Inquisitiveness <ol style="list-style-type: none"> <li>1. Application of the shodasha tatwa of Nyayadarshana in the Research process</li> <li>2. Application of Pareeksha and Pramana in Research</li> </ol> </li> </ul>	2	10	20	30	60

	<p>3. Utility of Pratyaksha, Anumana, Upamana, Aptopadesha and Yukti in Research</p> <p>4. The methods of designing research questions based on Samhita - taking Katidha purusheeyam shareeram of Charaka Samhita as a model</p> <ul style="list-style-type: none"> <li>• <b>M6.U2</b> Prayogam : The methodologies of research execution based on Samhita <ol style="list-style-type: none"> <li>1. Six Sambhasha of Charaka Samhita as models of research.</li> <li>2. Karya abhinirvritti ghatakas (Dasavidha pareekshya bhava) in research application</li> <li>3. Role of Hetwabhasa in research and diagnosis</li> <li>4. Types of association (yadricchha, samyoga, vyapti, karya-karana sambandha and Samavaya)</li> </ol> </li> <li>• <b>M6.U3</b> Prayojanam : The methods of evaluation / Samhita based outcome evaluation <ol style="list-style-type: none"> <li>1. Aushdha Pareeksha paddhati in Ayurveda</li> <li>2. Roga-Rogi pareeksha paddhati in Ayurveda</li> <li>3. Yoga(formulation) Pareeksha paddhati in Ayurveda</li> <li>4. Dhatusamya Pareeksha</li> <li>5. Generation of proof for Siddhantas in Ayurveda</li> </ol> </li> <li>• <b>M6.U4</b> Verbal &amp; Documentary communication of Research outcome based on Samhita <ol style="list-style-type: none"> <li>1. Utilization of Panchavayava Vakya, Tantra yukti in research</li> <li>2. Pancha avayava vakya in framing research problems and reporting.</li> </ol> </li> </ul>					
7	<p><b>M-7 Translational Ayurveda</b></p> <p>This module provides an overview of Translational Ayurveda - an interdisciplinary approach to integrate traditional Ayurvedic knowledge</p>	2	10	20	30	60

systems and modern scientific research to revalidate and revitalise the principles and practice of Ayurveda.

- **M7.U1** Fundamentals of research in Ayurveda
  1. Importance, areas and challenges of Translational Research in Ayurveda
  2. Translational Medicine
  3. Evidence-Based Medicine and its Framework
- **M7.U2** Literary Research
  1. Fundamentals of Computational Linguistics
  2. Stylometry
  3. Application of Computational Linguistics
  4. Stylometry in Samhita-based research
- **M7.U3** Genomic Sciences
  1. Introduction to Genomics
  2. Genome Structure and Organization
  3. Genomic Variation
  4. Gene Expression and Regulation
  5. Genomic Technologies
  6. Integration of Ayurveda and Genomics
- **M7.U4** Metabolomics
  1. Introduction to Metabolomics
  2. Analytical Techniques used in metabolomics
  3. Applications of Metabolomics
- **M7.U5** Human Gut Microbiome
  1. Introduction to the Gut Microbiome
  2. Microbial Diversity
  3. Techniques for Studying the Microbiome
  4. Microbiome and Health
  
- **M7.U6** Bioinformatics



	<ol style="list-style-type: none"> <li>1. Introduction to Bioinformatics</li> <li>2. Biological Databases</li> <li>3. Systems biology</li> </ol>					
		16	80	160	240	480

**Table 3 : Modules - Unit - Module Learning Objectives and Session Learning Objective- Notional Learning Hours- Domain-Level- TL Methods**

3B Course Outcome	3C Learning Objective (At the end of the (lecture/practical/experiential) learning session, the students should be able to)	3D Notional Credit Hours	3E Lecture/ Practical/ Experiential Learning	3F Domain/ Sub Domain	3G Level (Does/ Shows how/ Knows how/ Know)	3H Teaching Learning Methods
<b>Module 1 : Evolution of Ayurveda: From early stages to contemporary</b>						
<ol style="list-style-type: none"> <li>1. Outline and analyze the origin and evolution of Ayurveda through different periods.</li> <li>2. Examine the trend of Ayurveda as evidenced in different forms of literature</li> <li>3. Compare Ayurveda with other systems of Ayush</li> </ol>						
<b>Unit 1 Stages of development of Ayurveda</b> <ol style="list-style-type: none"> <li>1. Stages of development: Different opinions</li> <li>2. Pre-Vedic, Vedic, Samhita Kala, Sangraha Kala and Adhunika Kala: Fixing the periods</li> <li>3. Characteristics and development of Shastra, Tantra, and Vidya in India and comparison with Ayurveda</li> </ol> <b>References:</b> 9,14,28,29,43,44,45,46						
3A	3B	3C	3D	3E	3F	3G
CO2	Identify and summarize various scholarly opinions on the stages of development of Ayurveda	1	Lecture	CC	Knows-how	DIS
CO2	Analyze various scholarly opinions on the stages of development of Ayurveda, including Pre-Vedic, Vedic, Pracheena Kala (Samhita Kala), Sangraha Kala (Madhyakala), and Adhunika Kala	1	Lecture	CC	Knows-how	L&GD

CO2	Differentiate Shastra, Tantra, Vidya and compare with Ayurveda and outline the development	4	Experiential-Learning1.1	CE	Knows-how	BS
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### Unit 2 Early stage of development of Ayurveda

1. Evidence of healthcare practices in the pre-Vedic and pre-historic periods
2. Health care during the Indus Valley Civilization
3. Medical practices in Vedic literature
4. Ancient health care practices: Atharvini, Angirisi, Daivi, Manushi
5. Daiva-vyapasraya chikitsa: Its dominance

**References:** 9,14,28,41,42,43,44,45,46

3A	3B	3C	3D	3E	3F	3G
CO2	Analyze healthcare practices of the Prehistoric and Pre-Vedic periods through historical and archaeological evidence.	4	Practical1.1	CAN	Knows-how	BS,LS
CO2	Identify the gross nature of medical practices in Vedic literature including Atharvani, Angirasi, Daivi and Manushyaja practices and the importance of Daivavyapasraya chikitsa measures	2	Practical1.2	CE	Knows-how	PER,PrBL

### Unit 3 Evolution of Ayurveda during Samhita-kala (Prachina kala)

1. Eminent scholars of Samhita Kala
2. Philosophical synergy of Ayurveda and Darshanas
3. Philosophical synergy of Ayurveda and Buddhism
4. Branching of Ayurveda
5. Stages of evolution of Samhitas

6. Samhitas in different branches  
7. Interaction with Greek tradition

**References:** 9,14,27,28,41,42,43,44,45,46

3A	3B	3C	3D	3E	3F	3G
CO2	Identify the contributions of the major personalities of Samhita Kala	2	Lecture	CC	Knows-how	FC,L&GD
CO1,CO2	Analyze the influence of Darshanas for theorizing the practices and influence of Buddhism	2	Lecture	CE	Knows-how	FC,L&GD
CO2	Analyze the role of specialization (branching) in shaping the evolution of Ayurvedic medicine.	2	Lecture	CE	Knows-how	C_L,L&GD
CO2	Evaluate the stages in the evolution of Samhitas (mulagrantha, pratisamskrita grantha) and their significance in the development of Ayurvedic science through internal textual analysis.	4	Experiential-Learning1.2	CE	Shows-how	IBL,PER,PBL
CO2	Analyze the major Samhitas as collective contributions of various eminent scholars in the field of Ayurveda.  Identify and list major Samhita granthas associated with different branches of Ayurveda.	4	Practical1.3	CE	Does	DIS,PBL
CO2,CO7,CO8	Analyse the interaction with Greek tradition and ancient globalization of Ayurveda	2	Experiential-Learning1.3	CAN	Knows-how	BS,DIS,PER

#### Unit 4 Status of Ayurveda during Sangraha-kala (Madhya kala)

1. Acharyas of Sangraha-kala
2. Gross differences from Samhita-kala
3. Advancements in Rogavinjana, Bhaishajya Kalpana, Rasashastra, Dravyaguna and Chikitsa
4. Nature of sangraha granthas
5. Comparison of different forms of literature in Ayurveda, such as Samhita, Sutra, Bhashya, Sangraha, Nighantu, Kosha, Teeka, Vyakhya and Tippani

**References:** 9,27,28,41,42,43,44,45,46

3A	3B	3C	3D	3E	3F	3G
CO2	<p>Identify eminent personalities of Sangraha-kala</p> <p>Analyse gross differences from Samhita-kala</p> <p>Differentiate the nature of Sangraha granthas from Samhita granthas</p> <p>Identify major advancements in Rogavinjana, Bhaishajya Kalpana, Rasashastra, Dravyaguna and Chikitsa</p>	3	Practical1.4	CE	Knows-how	DIS
CO2	Differentiate and evaluate various forms of Ayurvedic literature by analyzing their structure, purpose, and characteristics using defined criteria.	3	Experiential-Learning1.4	CE	Does	PBL

#### Unit 5 Status of Ayurveda during Modern age (Adhunika kala)

1. Eminent scholars in modern age such as Gananatha sen, Yogendranath Sen, Gangadhara Rai, K N Udupa, and P V Sarma.
2. Influence of colonial rule on Ayurveda during pre-Independent period
3. Formation of different committees such as Health Survey and Development Committee-Bhor, Chopra Committee, Pandit Committee, Dave Committee, Udupa Committee and Vyas Committee
4. Post-independent revival activities - formation of councils, institutions, AYUSH ministry
5. Ayurveda in the global context: Reach, Relevance and Revival
6. The World Health Organization (WHO) initiative in recognizing Ayurveda
7. Efforts for an integrated approach
8. Advancements in Research activities
9. Advancements in the education sector relevant to Ayurveda

**References:** 9,14,27,28,41,44,45

3A	3B	3C	3D	3E	3F	3G
CO2,CO8	Describe the influence of colonial rule on Ayurveda during the pre-independent period	1	Lecture	CC	Know	L&GD
CO2,CO8	Analyze the contributions of important personalities in the modern age, such as Gananatha sen, Yogendranath Sen, Gangadhara Rai, K N Udupa and PV Sharma	3	Experiential-Learning1.5	CS	Knows-how	DIS,LS
CO2	Analyze and evaluate the constitution, recommendations, and reforms proposed by various committees for the development of Ayurveda in the modern period.	4	Experiential-Learning1.6	CE	Does	DIS,PER,PBL
CO1	Analyze the role of government and academic initiatives in the post-independent revival of Ayurveda	3	Experiential-Learning1.7	CAN	Knows-how	LS
CO2,CO7	Analyse trends and impact of globalization of Ayurveda during recent decades	4	Experiential-Learning1.8	CAN	Knows-how	SY

CO2	Identify the efforts for an integrated approach in recent decades and initiatives from the WHO	3	Experiential-Learning1.9	CAP	Knows-how	BS
CO2	Analyse recent adavnacements in Research activities in the field of Ayurveda. Propose comprehensive research models suitable for Ayurveda	5	Experiential-Learning1.10	CS	Does	DIS,IBL,SY
CO2	Identify and analyze the progression of educational reforms and institutions in Ayurveda.	4	Experiential-Learning1.11	CE	Knows-how	BS,PL

### Unit 6 Ayurveda and other systems of medicine

1. Basic doctrines of different systems Siddha, Naturopathy, Unani and Sowarigpa
2. Relationship between different systems of medicine and Ayurveda

**References:** 41,47

3A	3B	3C	3D	3E	3F	3G
CO2,CO8	Describe the basic doctrines of different systems such as Siddha, Naturopathy, Unani and Sowarigpa	3	Lecture	CC	Knows-how	FC
CO2,CO8	Analyze and compare the principles and practices of Siddha, Naturopathy, Unani, and Sowarigpa with those of Ayurveda.	10	Practical1.5	CAN	Does	FV,TPW

### Unit 7 Archeological evidences of Ayurveda

1. History of Indian archaeology and its relevance to Ayurveda
2. Understanding of artefacts, petroglyphs, and pictographs related to Ayurveda
3. Various methods used in archaeology along with basic knowledge of techniques such as carbon dating and enstampage and their utility in Ayurveda
4. Primary and secondary evidence related to archaeology and their relevance to Ayurveda; Knowledge of important primary evidence relating to Ayurveda such as rock edicts of Ashoka

**References:** 49,50,77,79

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the various methods of Archaeology including use of artifacts, petroglyphs, pictographs, carbon dating, enstampage and their utility in Ayurveda	3	Lecture	CC	Knows-how	L&PPT
CO2	Identify various methods used in Archeology along with basic knowledge of techniques such as carbon dating and enstampage and their utility in Ayurveda.	4	Practical1.6	CE	Does	BL,FV
CO2	Analyse primary and secondary evidence related to Archeology, especially those related to Asokas edicts, and their relevance to Ayurveda	3	Practical1.7	CAN	Knows-how	BS,DIS

### Practical

S.No	Name	Activity details
Practical1.1	Healthcare practices of the pre-Vedic and prehistoric period	<b>Teacher's role:</b> (1) Give an outline of the nature of medical practices during the specified periods (2) Suggest sources for reference and consultation (books, online sources, videos, experts etc.) (3) Familiarise the format of the final report



		<b>Scholars' role:</b> (1) Collect and compile details from the specified sources (2) Explore the trends with proper evidence and references about medical prevedic/prehistoric period starting from primitive man up to the Indus Valley Civilization. (3) Conduct discussions with experts in the field (4) Prepare and present the results
Practical1.2	Nature of Vedic Practices	<b>Teachers' role:</b> (1) Give an outline of Vedic content, (2) Suggest sources and materials, including textbooks and e-sources  <b>Learners' role:</b> Prepare a summary (not less than 1000 words) on four types of practitioners and the gross nature of Vedic Practices. Differentiate the categories mentioned and prepare a report, which can be added to the final practical record
Practical1.3	Evolution of Samhita through contributions of different eminent personalities	<b>Teachers' role:</b> Allot one each Brihat trayee to each scholar to identify major masters associated with the corresponding Samhita and to make brief notes on each contributor. Similarly, distribute Ashtangas among scholars to identify and enlist different Samhitas related to the corresponding anga.  <b>Learners' role:</b> After completing the task, make a report including available pictures of the corresponding masters.
Practical1.4	Trends in Sangrahaakala	<b>Teachers' role: (1)</b> Sensitize the scholars with major trends in Sangrahaakala (2) Allot subtopics among scholars, such as Rogavijnana, Bhaishajyakalpana, Dravyaguna and Chikitsa.  <b>Learners' role:</b> Identify and prepare notes on major masters, major textbooks and major contributions in the area allocated. Prepare a report (<2000 words) with available materials and pictures.
Practical1.5	Ayurveda and other systems of Medicine	<b>Teachers' role:</b> (1) Allot one system each to each scholar (2) Sensitize about principles of other Systems (3) Initiate field visits to

		<p>nearby Centres or interviews with practitioners (4) Prepare template/guidelines for final report</p> <p><b>Learners' role:</b> (1) Build up awareness of basic principles and practices of the system allotted (Siddha/Naturopathy/Unani/Sowarigpa) (2) Compare the principles with Ayurveda (3) Visit a nearby centre of those systems to see the activities or Interact with practitioners of the proposed system (4) Prepare a report of observations</p>
Practical1.6	Archeology and Ayurveda	<p><b>Teachers' role:</b> (1) Identify nearby Centers or contact experts in the field or identify reliable online resources, get permission. (2) Prepare guidelines for field visits and a template for reporting</p> <p><b>Learner role:</b> (1) Visit the centre or visit proposed websites or interview experts suggested (2) Get details about techniques such as Carbon dating, enstampage etc. (3) Asses their utility in Ayurveda</p>
Practical1.7	Primary and secondary evidence in Ayurveda	<p><b>Teacher's role:</b> (1) Provide background on Ayurveda's development during the Asoka's era.(2) Guide students to differentiate between primary (e.g., edicts, inscriptions, monuments) and secondary (scholarly articles, books) sources. (3) Support students in selecting topics, forming arguments, and presenting evidence through essays, posters, or oral presentations.</p> <p><b>Scholars' role:</b> (1) Distinguish between primary and secondary sources in archaeology and history. (2)Analyze Ashoka's edicts for references to health, environment, ethics, and public well-being. (3) Study the historical role of Ayurveda during the Mauryan period and identify overlaps. (4) Evaluate how archaeological findings reflect</p>

		the practice and state support of Ayurveda. (5) Compile the report in the prescribed format
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning1.1	Difference between Sastra, Tantra and Vidya	Scholars will be instructed to explore the definitions, implications and scopes of the terms Shastra, Tantra and Vidya concerning Indian knowledge tradition through sources such as Koshas, Textbooks, E-sources, Lexicons, etc. and make a comparison about how they are interrelated and differentiated. Analyse how much the definitions apply to Ayurveda with reference to the synonyms given for tantra in Charakasamhita Sutrasthana 30th chapter. Have discussions in the class and prepare a report. Document the reflections in the form of a portfolio.
Experiential-Learning1.2	Evolution of Samhita	Purpose of this activity is to identify different stages of evolution of Samhita mulagrantha, pratisamskrita grantha etc. from the evidences available in the Samhita (internal evidence). Teachers will sensitize the learners about different types of Sutras available in Samhita (Gurusutra, Shishyasutra, Pratisamskartru sutra and Ekeeya sutra) and give some examples. Allot one Chatushka each to each scholar and direct them to identify different Sutras to the above categories. Scholars may will classify Sutras available in the allotted chapters to the categories and identify the stages of development of the Samhita by analysing role of Mula acharya (Eg. Atreya), role of Granthakarta (Shishya Eg. Agnivesha), role of Pratisamskarta (Charaka and Dridhabala) and role of other Acharyas (where Sambhasha parishat is conducted). Observations will be documented and reflections may be entered in portfolio.

<p>Experiential-Learning1.3</p>	<p>Ancient Globalization of Ayurveda</p>	<p>Purpose of the session is to analyse the interaction with Greek tradition and ancient globalization of Ayurveda. Scholars will explore materials related to influence of Greek medicine in Ayurveda and trace out the historical events sustained in ancient period especially related to Greek expedition. Brainstorm on nature of ancient globalization that could have been occurred during that period. Discuss and document the observations. Reflections will be documented in portfolio. After completing the activity, PG scholars are encouraged to document their reflections and insights in their academic portfolio as a part of reflective practice.</p>
<p>Experiential-Learning1.4</p>	<p>Different forms of literature in Ayurveda</p>	<p>Scholars are instructed to identify definitions and features of different forms of literature like Samhita, Sutra, Bhashya, Sangraha, Nighantu, Kosha, Teeka, Vyakhya and Tippani. They are instructed to prepare a checklist based on features identified. Then let them select at least one textbook from each category and evaluate them with the help of a prepared checklist. Document the observations in the form of checklists. After completing the activity, PG scholars are encouraged to document their reflections and insights in their academic portfolio as a part of reflective practice.</p>
<p>Experiential-Learning1.5</p>	<p>Personalities in the Modern Age</p>	<p>Prepare and present monographs of personalities in the modern age, such as Gananatha sen, Yogendranath Sen, Gangadhara Rai, K N Udupa and PV Sharma. The monograph will include a biography and major contributions. More experts who are regionally accepted can be included. After completing the activity, PG scholars are encouraged to document their reflections and insights in their academic portfolio as a part of reflective practice.</p>
<p>Experiential-Learning1.6</p>	<p>Committees for development of Ayurveda</p>	<p>Collect details about the constitution and activities of different committees for the development of Ayurveda during the modern period. Let them discuss the major contributions of different committees and evaluate the changes through these activities. Debate on the pros and cons of such activities. After completing the</p>

		activity, PG scholars are encouraged to document their reflections and insights in their academic portfolio as a part of reflective practice.
Experiential-Learning1.7	Post independent revival activities	Visit the websites of various Institutions, National Institutes, Educational centres, Councils and collect details. Interact with people who are working or have key roles in such institutions and councils. Compile the information and make presentations and discussions. After completing the activity, PG scholars are encouraged to document their reflections and insights in their academic portfolio as a part of reflective practice.
Experiential-Learning1.8	Trends of Globalization	Students are instructed to begin by researching the current status and global spread of Ayurveda in countries such as Germany, Italy, Russia, the USA, the Middle East, and Southeast Asia. Based on their findings, they will organize a symposium or online interactive session featuring Ayurvedic physicians and technicians practicing abroad. During the session, students should actively engage with the speakers to gather insights on regional trends, challenges, opportunities, and innovations in Ayurveda outside India. Following the event, students must compile the information and prepare a reflective report that includes a summary of their research, key learnings from the session, and personal reflections on the global relevance of Ayurveda. This report will be documented in their academic portfolio as part of their reflective practice.
Experiential-Learning1.9	Recent trends in Integrated Approach in Ayurveda and Impact of WHO	Learners are instructed to analyse recent efforts for integrating Ayurveda with other systems of science by taking different models such as Ayurveda Biology, Reverse Pharmacology, and advancements in pharmaceuticals. Analyse the contributions of WHO and make a report. Explore the background and impact of the WHO regional center in Jamnagar. Discuss the observations through brainstorming and make reflections.

Experiential-Learning1.10	Recent Advancements in Research	Identify some areas of recent research conducted by councils like CCRAS, DST, in collaboration with modern technologies ( Eg Ayurveda biology, Genome Studies, Clinical trials, network pharmacology, bioinformatics-based studies, etc.), collect and review research papers, to trace out the trend of research in Ayurveda. Conduct a discussion with experts and propose research models suitable for Ayurveda. Document the observations and reflections in a portfolio.
Experiential-Learning1.11	Advancements in the education sector	Learners are allowed to identify the changing trends in the education sector from the Gurukula system to the present era. They can track the formation of different councils for the development of Ayurveda education, distinguish the roles of those councils, and delineate recent reforms in the education sector after the inception of NCISM. Interaction with educational experts (in Ayurveda) is encouraged to collect first-hand information. Learners will present and discuss their observations in class. Learners shall record the process, key findings, and expert inputs in their academic portfolio, along with a reflective note on insights gained and their relevance to their future role.

### Modular Assessment

#### Assessment method

Instructions—Conduct a structured Modular assessment. The assessment will be for 75 marks (25 per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

Assessment based on:

1. Group discussion on Status of Ayurveda in a particular period (25 marks): Evaluated based on ideas shared, nature of participation and dynamics in the group discussion.
2. Symposium on recent developments of Ayurveda (25 marks): Evaluated based on content presented, presentation skills and quality of interaction.

#### Hour

6

3. Presentation on the globalization of Ayurveda. (25 Marks)

Or

Any practical in converted form can be taken for assessment (25 Marks)

Or

Any Experiential Learning as portfolio / reflections / presentations, can be taken as an assessment.(25 Marks)

## Module 2 : Applied Sanskrit

1. Demonstrate skills to explore different meanings of the Pada using Kosha and Patha of classical texts along with Chhanda.
2. Demonstrate Anvaya skills relevant in classical texts.
3. Apply grammar in exploring Mula-grantha and Vyakhyana.
4. Demonstrate Sanskrit writing skills and Translation skills from Sanskrit to English/Hindi/local languages.

### Unit 1 Applied Sanskrit 1

- Pratipadika, Pada/Shabda roopa, linga, vachana, Avyaya, Nirukti & Vyutpatti

**References:** 2,3,4,5,8,40,61,62,63,64,67

3A	3B	3C	3D	3E	3F	3G
CO4	Define <b>Pratipadika</b> as per Panini and identify Pratipadika in given examples from classical texts and commentaries with the help of kosha/shabdarupavali and observe the ending letter in pratipadika.  (Ex. In the wordform 'संयोगे' Pratipadika is संयोग it is अकारान्त, in the wordform 'मनः' pratipadika is 'मनस्' it is सकारान्त	1	Lecture	CC	Knows-how	L&GD
CO4	Identify the difference between meanings of pratipadika and the word form (with vibhakti) actually used in text.	1	Practical2.1	CS	Does	BL,EDU
CO4	Analyze <b>Pada/Shabda roopa</b> observed in classical texts and commentaries based on Linga, Vibhakti and Vachana of Swaranta and Vyanjanata words	2	Practical2.2	CAP	Does	SDL



	Note the difference between the meanings of pratipadika and the word form (with vibhakti) used in the text.					
CO4	Analyze <b>Sarvanama roopa</b> observed in classical texts and commentaries on the basis of Linga, Vibhakti and Vachana and note its meaning.	2	Practical2.3	CAN	Does	D
CO4	Identify and describe Avyaya observed in classical texts and commentaries, list their possible meanings and justify the applicable meaning as per context	3	Experiential-Learning2.1	CAN	Does	SDL
CO4	Analyze the Vyutpatti ,Nirukti of the words/pratipadika observed in classical texts and commentaries using Kosha	3	Experiential-Learning2.2	CS	Does	C_L

## Unit 2 Applied Sanskrit 2

- Karaka,Vibhakti, Upapada vibhakti, Prayoga (Kartari, Karmani)

**References:** 7,61,62,63,64

3A	3B	3C	3D	3E	3F	3G
CO4	Describe Karaka, Karta, Karma, Karana, Sampradana, Apadana and Adhikarana karaka in the classical texts and commentaries.	1	Lecture	CC	Knows-how	L&GD

CO4	Apply prathama to saptami Vibhakti on a given pratipadika observed in the classical text. Enlist their applicable meanings in the given context.	2	Practical2.4	CAP	Does	C_L
CO4	Analyze Upapada Vibhakti with an example from the classical text.	3	Experiential-Learning2.3	CAP	Knows-how	C_L,D
CO4	Identify the <b>vibhakti</b> of each applicable word in given verses or sentences from classical texts and commentaries and write justification of that vibhakti on the basis of Karaka or Upapada	3	Experiential-Learning2.4	CAN	Knows-how	SDL

### Unit 3 Applied Sanskrit 3

- Upasarga, Kriyapada and Pratyaya (Tinganta/lakara, kridanta/Krihya/ Stree, Taddhita, Sanadi/Nijanta)

**References:** 6,7,61,62,63,64

3A	3B	3C	3D	3E	3F	3G
CO4	Analyse Upasarga observed in classical texts and commentaries, explore their meanings and appraise how meaning of dhatu/pada differs adding upasarga	3	Practical2.5	CE	Does	SDL
CO4	Identify the kriyapada in sentences from classical texts and commentaries. Separate the upasarga, dhatu and pratyaya in kriyapada, and discriminate the change observed in the meaning of dhatu due to upasarga and/or pratyaya	1	Lecture	CK	Knows-how	BL
CO4	Identify tin (तिङ्), Krit (कृत)/Krihya (कृत्य)/Stree (स्त्री), Taddhita (तद्धित), Sanadi (सनादि)/Nich(णिच्) etc pratyaya in given pada from classical texts and commentaries, note the change in meaning due to pratyaya	2	Lecture	CC	Knows-how	L&GD,L&PPT

CO4	Identify the Dhatu and/or Pratyaya in Kriyapada or pada.	3	Experiential-Learning2.5	CAP	Knows-how	SDL
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#### Unit 4 Applied Sanskrit 4

- Sandhi and Samasa.

**References:** 6,7,61,62,63,64

3A	3B	3C	3D	3E	3F	3G
CO4	Describe Samhita and Sandhi. Enlist the places where Samhita/Sandhi is mandatory and optional. Observe the same in classical texts and commentaries.	1	Lecture	CC	Knows-how	L&GD
CO4	Identify different types of Sandhi in shlokas from classical texts and Explain the sandhi with the relevant sutras from Siddhanta Kaumudi/ Ashtadhyayi	2	Practical2.6	CE	Does	TUT
CO4	Identify and explain all types of Samasa with proper vighraha in the references from the classical texts and derive the contextual meaning applicable in Samasa on the basis of vighraha vakya.  Demonstrate the alteration of meaning by the change in samasa.	3	Experiential-Learning2.6	CAP	Does	SDL

#### Unit 5 Applied Sanskrit 5

- Chhanda

**References:** 6,7,65,68,78

3A	3B	3C	3D	3E	3F	3G
CO4	Describe the terms Chhanda, Vritta, Laghu, Guru, Gana, Matra, Yati, Pada (पद) Enlist and Discuss Ashta Gana	1	Lecture	CK	Know	L&GD,L&PPT
CO4	Identify the Chhanda/Vritta explored by Arunadatta in Ashtanga Hridaya mainly in Shodhanadi-gana-sangraha adhyaya and explain the lakshana of these Chhand/vritta from Vritta Ratnakara.	2	Practical2.7	CAP	Does	REC,TUT
CO4	Recite the Verses (Shodhanadi-gana-sangraha adhyaya) applying the rules of Chhanda	2	Experiential-Learning2.7	CAP	Shows-how	REC

#### Unit 6 Applied Sanskrit 6

- Prakrutartha/Shabdanyatva/Paryaya naama/Referring the Kosha

**References:** 2,3,4,5,8,37,67

3A	3B	3C	3D	3E	3F	3G
CO4	Describe the exact applicable meaning of the given pada relevant as per the context based on Vyutpatti and Nirukti, referring to the Kosha (Shabda-kalpadruma, Vachaspatyam and brihad-dhatu-kusumakara) etc	1	Lecture	CK	Knows-how	L&GD,LS
CO4	Compile synonyms of given words using Amarakosha, Halayudha kosh and Nighantu etc and justify with nirukti and vyutpatti	2	Practical2.8	CAP	Does	LS,PL,SDL

CO4	Compile multiple different meanings of given words using Kosha and Nighantu etc and justify them with the help of nirukti and vyutpatti.	3	Experiential-Learning2.8	CAP	Does	LS
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### Unit 7 Applied Sanskrit 7

- Shloka Pathana vidhi (Samhita Patha, Pada Patha)

References: 65,66

3A	3B	3C	3D	3E	3F	3G
CO4	Describe the different types of Patha in ancient chanting practices (Search, listen, observe, note and appreciate the difference in various methods of patha from available videos in web.)	1	Lecture	CAN	Knows-how	L_VC
CO4	Perform the Samhita patha of given chapter from classical texts following the chhanda and proper Hraswa-deergha Uccharana	2	Practical2.9	PSY-ADT	Shows-how	PER,REC
CO4	Perform the Samhita patha along with pada patha of given chapter from classical texts	3	Experiential-Learning2.9	PSY-ADT	Shows-how	REC

### Unit 8 Applied Sanskrit 8

- Anvaya (Pada ccheda/vibhaga, Dandanvaya, Khandanvaya, Visheshana-visheshya etc)

References: 2,3,4,6,7,33,34,35,36,37

3A	3B	3C	3D	3E	3F	3G
CO4	Apply grammatical analysis to verses, distinguishing each 'pada' and categorising each	1	Lecture	CAP	Knows-how	L&GD,L&PPT

	separated pada according to karaka, their visheshana, visheshya and kriyapada					
CO4	Perform Dandanvaya by logically rearranging the words of a verse t in sequential order to form complete Anvaya vakya.	2	Practical2.10	CAP	Does	C_L
CO4	Identify Kriyapada/basic sentence, get the complete sentence gradually in the form of answer to questions related to kriyapada and karaka (Khandanvaya)	3	Experiential-Learning2.10	CAP	Does	C_L

### Unit 9 Applied Sanskrit 9

- Mula Grantha Avabodha through Vyakarana anushtana

References: 1,30,31,32

3A	3B	3C	3D	3E	3F	3G
CO4	Describe the grammar portions explored by various commentators of classical texts while explaining original texts/Mula grantha.	1	Lecture	CC	Knows-how	L&GD,L&PPT
CO4	Apply principles of Sanskrit Vyākaraṇa, covering key grammatical components on the given Verses/Paragraphs from the Brihatrayi	4	Practical2.11	CAP	Does	D
CO4	Analyse the given Verses/Paragraph of Laghutrayi in detail in the light of Sanskrit Vyakarana, covering the utmost possible grammar components.	3	Experiential-Learning2.11	CAP	Does	D

### Unit 10 Applied Sanskrit 10

- Vyakhyana Avabodha through Vyakarana anushthana

**References:** 2,3,4,5,6,7,8,33,34,35,36,37

3A	3B	3C	3D	3E	3F	3G
CO4	Describe the given Paragraphs of Ayurveda Deepika and Jalpakalpataru commentaries of Charaka Samhita in detail in the light of Sanskrit Vyakarana covering utmost possible grammar components.	2	Lecture	CAP	Knows-how	L&GD,L&PPT
CO4	Apply Sanskrit Vyākaraṇa principles to analyze the linguistic structure and grammatical components of Nibandha Sangraha commentary of Sushruta Samhita	4	Practical2.12	CAP	Does	D
CO4	Apply Sanskrit Vyākaraṇa principles to analyze the linguistic structure and grammatical components of the given Paragraphs of Ayurveda Rasayana and Sarvangasundara commentaries of Ashtanga-hridaya	3	Experiential-Learning2.12	CAP	Does	LS,SDL

### Unit 11 Applied Sanskrit 11

- Translation and Editing skills

**References:** 6,7,8,34,35,36,37

3A	3B	3C	3D	3E	3F	3G
CO4	Identify and analyse the Prayoga and Karaka (karta, karma etc), Vibhakti, Visheshana, Avyaya and Kriyapada used in sentences of classical texts and commentaries as a first step of translation	2	Lecture	CAN	Knows-how	L&PPT

CO4	Construct language syntax/word-to-word meaning by selecting appropriate words, verbs for each component with the help of Sanskrit-English or Sanskrit-Hindi or other Kosha and by applying the grammar of Sanskrit and target language in sentences of classical texts and commentaries.	2	Practical2.13	CS	Does	PAL
CO4	Construct structurally and semantically equivalent translations by preserving all grammatical and semantic elements from classical texts and commentaries.	2	Experiential-Learning2.13	CS	Does	D,DIS,PrBL

### Unit 12 Applied Sanskrit 12

- Writing and Speaking Skills (Basics of Composing a new text and writing/narrating commentary)

**References:** 6,7,8,36,37

3A	3B	3C	3D	3E	3F	3G
CO4	Construct an explanatory note in Sanskrit on selected verses and commentary lines, synthesizing classical concepts in original Sanskrit prose.	1	Experiential-Learning2.14	CS	Does	SDL
CO4	Compose and present a short speech in Sanskrit on given topic of Ayurveda	1	Experiential-Learning2.15	CAP	Shows-how	D,SDL

### Practical

S.No	Name	Activity details
Practical2.1	Pratipadika and the word form (with vibhakti) used in text.	<b>Teacher's role:</b> (1) Demonstrate identification of difference between meanings of pratipadika and vibhakti with a few examples (2) Select and allot 10 Verses/10-line paragraph each from classical texts and a



		<p>minimum 10-line paragraph from commentaries, preferably from Sutrasthana, for each scholar</p> <p><b>Learner's role:</b> (1) Identify and Write at least 20 namarupa from each of these two sectors with Pratipadika, Anta, Linga, Vibhakti, Vachana and Exact applicable meaning in English/Hindi/Other language of the Nama-rupa/ noun-forms from given verse/paragraph of Classical texts and Commentaries. (2) Prepare tables to illustrate the findings</p>
Practical2.2	Pada/Shabda roopa observed in classical texts and commentaries.	<p><b>Teachers' role:</b> (1) Demonstrate identification of Linga, Vibhakti and Vachana in a few examples Ex. भावानां – प्रातिपदिक – भाव, अकारान्त, पुंलिङ्ग, षष्ठी, बहुवचन, [भाव – any existing thing/object, भावानां – of the object/existing thing] पयोदपयसा – प्रातिपदिक – पयोदपयस् समासबद्ध पद, सकारान्त नपुंसकलिङ्ग, तृतीया, एकवचन, [ पयोदपयस् – rain water, पयोदपयसा – by rain water]) (2) Allot one each chapter from Sutrasthana to each scholar along with its commentary for doing the above exercise</p> <p><b>Learner's role:</b> (1) Identify at least ten each terms from Samhita and commentary and Write Linga, Vibhakti, Vachana and Exact applicable meaning in English/Hindi/Other language of the Sarvanama pada from given Chapter of Classical texts and its Commentaries. Identify the Nama-rupa indicated by each Sarvanama. Compare Linga, Vibhakti, Vachana of Sarvanama and Nama. (2) Prepare a table to represent the findings</p>
Practical2.3	Sarvanama roopa	<p><b>Teachers' role:</b> (1) Demonstrate identification of Pratipadika, Anta, Linga, Vibhakti, Vachana and Exact applicable meaning with few examples (Ex. यस्याः – यद् सर्वनाम, पुंलिङ्ग/नपुं., षष्ठी, एकवचन, अहम् – अस्मद् सर्वनाम, पुं., प्रथमा, एकवचन) (2) Allot 10 Verses/10-line paragraph from classical texts and a minimum 10-line paragraph from commentaries for each scholar from Sutrasthana or Shareerasthana</p>

		<p><b>Learner's role:</b> (1) Identify Pratipadika, Anta, Linga, Vibhakti, Vachana and Exact applicable meaning in English/Hindi/Other language of the Nama-rupa/word-forms from given verse/paragraphs - total 20 namarupa (2) Prepare table to represent the findings.</p> <p><b>Outcome:</b> Tabular description of findings, added to practical record.</p>
Practical2.4	Identification of vibhakti	<p><b>Teachers' role:</b> (1) Demonstrate use of Saptami vibhakti on the basis of Karaka and Upapada (2) Allot 10 sentences/verses to each scholar</p> <p><b>Learners' role:</b> (1) Identify the vibhakti of each applicable word in given verses or sentences from classical texts and commentaries and write justification of that vibhakti on the basis of Karaka or Upapada (2) Prepare summary of observations</p>
Practical2.5	Upasarga observed in classical texts and commentaries	<p><b>Teachers' role: (2)</b> Demonstrate use and importance of Upasarga in a few examples (2) Allot one chapter/commentary from any of the classical texts to each scholar</p> <p><b>Learner's role:</b> (1) Identify terms in the given chapter with Upasarga (2) Analyse the Upasarga appraise how meaning of dhatu/pada differs adding upasarga (3) Summarise the findings as a report</p>
Practical2.6	Different types of Sandhi in shlokas with explanation of relevant sutras	<p><b>Teacher's role:</b> (1) Illustrate Sandji rules in a few selected examples (2) Allot one chapter from Brihat-trayee each to each scholar</p> <p><b>Learner's role:</b> (1) Identify the type of Sandhi and its Panini Sutra for not less than 20 terms selected from the given chapter (2) Summarise the findings</p>
Practical2.7	Chhanda/Vritta explored by Arunadatta in Ashtanga Hridaya	<p><b>Teachers' role:</b> (1) Demonstrate identification of chandas in a few examples (2) Allot 10 Shlokas each to each scholar</p> <p><b>Learners' role:</b> (1) Identify the Chhanda/Vritta in given examples by identifying set of Gana and counting the Akshara/matra. Chant the</p>

		verse as per particular chhanda. Make use of Arunadatta commentary in identifying the chandas. (2) Summarise the findings (3) Record the recitation (voice recording)
Practical2.8	Compilation of synonyms from Kosha grantha	<p><b>Teachers' role:</b> (1) Introduce selected synonyms from a few topics (2) Allot 10 words each to each scholar which are synonyms to common terms from Sutrasthana of Charakasamhita (Eg. Anila for vayu)</p> <p><b>Learners' role:</b> (1) Consider the synonym and go to its original terms (2) Enlist <b>synonyms</b> of given words using Amarakosha, Halayudha kosh and Nighantu etc and justify them with the help of nirukti and vyutpatti. (3) Identify the difference in meanings by referring Nirukti of each synonym (maximum ten terms) (4) Summarise the findings</p> <p>(10 words for synonyms are to be given from classical texts and commentaries)</p>
Practical2.9	Enact the Samhita patha	<p><b>Teachers' role:</b> (1) Demonstrate Samhita-patha following the chhanda and proper Hraswa-deergha Uccharana of a few verses (2) Allot one chapter each to each PG scholar</p> <p><b>Learners' role:</b> Chant and record the voice of Samhita patha of the allotted chapter</p>
Practical2.10	Dandanvaya	<p><b>Teachers' role:</b> (1) Demonstrate Dandanvaya for a few verses (2) Allot 10 verses each to each scholar</p> <p><b>Learners' role:</b> (1) Perform dandanvaya for the selected verses (2) Document the anvaya</p>

Practical2.11	Identification of Sanskrit Vyakarana by explaining the verses of Brihatrayi	<p><b>Teachers' role:</b> Allot one paragraph (or combination of prose and poem) to each scholar</p> <p><b>Learner's role:</b> (1) Identify maximum possible grammatical applications such as vibhakti, sandhi, samasa, anvaya (if applicable), chandas (if applicable) etc. in the given material. (2) Summarise the observations</p>
Practical2.12	Identification of Sanskrit Vyakarana by explaining Paragraphs of Nibandha Sangraha commentary i	<p><b>Teachers' role:</b> Allot 10 lines from Nibandha Sangraha commentary to each scholar</p> <p><b>Learners' role:</b> Identify grammatical applications in the given material and summarise the observations</p>
Practical2.13	Making the language syntax	<p><b>Teacher's Role:</b> Assign 10 verses from a classical text and 10 ten-line paragraphs from a commentary. Guide learners in padaccheda, anvaya, and sentence structure. Review and assess the final record.</p> <p><b>Learner's Role:</b> Analyze each verse and paragraph through word-splitting, logical construction, and grammatical breakdown. Maintain a structured record file with analysis and reflections.</p>
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning2.1	Avyaya observed in classical texts and commentaries	Identify and describe Avyaya-s observed in classical texts and commentaries, enlist their possible meanings, and justify the applicable meaning based on the context. A chapter from classical texts along with commentary will be provided; students will explore Avyaya-s as per the above points, covering at least 10 Avyaya-s from each of these two sources.

		Learners shall document the selected Avyaya-s, their contextual analysis, and justification of meaning in their academic portfolio. A reflective note should be added, highlighting how this exercise deepened their understanding of contextual grammar and its relevance in interpreting classical texts accurately.
Experiential-Learning2.2	Vyutpatti and Nirukti of the words/pratipadika observed in classical texts and commentaries using Kosha	<p>Explain and discuss the Vyutpatti and Nirukti of words (pratipadika) observed in classical texts and commentaries using appropriate Kosha-s. Ten different words, each from classical texts and commentaries, can be selected. Teachers may identify and allot technical terms from Brihat-trayee, with ten terms each assigned to the scholars for detailed exploration.</p> <p>Learners shall document the Vyutpatti, Nirukti and contextual relevance of the allotted terms in their academic portfolio, with references from Kosha-s. A reflective note should be included, focusing on how understanding the linguistic roots enhanced their comprehension of Ayurvedic concepts and terminology.</p>
Experiential-Learning2.3	Identification of upapada vibhakti	<p>The teacher will demonstrate the identification of Upapada Vibhakti in a few examples and then allot 10 sentences from any of the Samhita-s to each scholar. Learners will identify the Upapada Vibhakti of each applicable word in the given verses or sentences from classical texts and commentaries and provide justification for the use of that vibhakti based on Kāraka or Upapada. Learners will also summarize their observations.</p> <p>Learners shall record the identified Upapada Vibhakti-s, their justification based on grammatical rules, and a summary of key patterns or insights observed across the examples in their academic portfolio. A reflective note should be added on how this exercise contributed to a deeper understanding of sentence structure and grammatical precision in classical texts.</p>

Experiential-Learning2.4	Identification of <b>Kartari Prayoga</b> or <b>Karmani Prayoga</b>	Teacher will Demonstrate identification of Kartari/Karmani Prayoga in a few examples from Charaka ssamhitaand allot total of 10 sentences from Classical texts and commentaries for each scholar. Learners will identify Kartari/karmani prayoga in the given example and explain the relevance of Kartari prayoga. Learners shall document each sentence with identification of the prayoga, grammatical justification, and rewritten versions (wherever applicable). A reflective note should be included, focusing on how understanding prayoga enhanced their interpretative skills and clarity in comprehending the intended meaning of classical texts.
Experiential-Learning2.5	Dhatu and/or pratyaya in Kriyapada or pada	<b>Students will select</b> 10 kriyapada each from Classical texts and commentaries <b>themselves</b> . Identify the Dhatu and/or Pratyaya in Kriyapada or pada, and writethe exact applicable meaning.
Experiential-Learning2.6	Identification and explanation of all types of Samasa	The teacher will allot one chapter each from Brihat Trayi to each scholar to identify the most relevant Samāsa used in the text. Learners will also suggest alternate possible Samāsa-s along with their meanings wherever applicable. Additionally, each learner will independently select 20 examples from classical texts to analyze and explain the type of Samāsa, explore possible alternatives, and interpret the contextual meaning. The findings shall be submitted as a record file, along with a reflective note on how this exercise improved their grammatical interpretation and conceptual clarity of classical terms.
Experiential-Learning2.7	Chanting the Verses	Learners will chant the Verses of Shodhanadi-gana-sangraha adhyaya applying the rules of Chhanda and prepare recorded audio or video.

Experiential-Learning2.8	Compilation of words with different meanings and its justification	Compile multiple different meanings of given words using Amarakosha, Halayudha kosh and Nighantu etc and justify them with the help of nirukti and vyutpatti.  (10 words each for synonyms and multiple different meanings to be given from classical texts and commentaries)
Experiential-Learning2.9	Enacting Samhita patha along with pada patha	Students will select any one Sthana from classical texts for performing Samhita patha and pada patha with audio recording
Experiential-Learning2.10	Preparation of Khandanvaya	The teacher will demonstrate the process of Khandanvaya by gradually forming the complete sentence as answers to questions related to the Kriyāpada and Kāraka-s. Each scholar will be allotted 10 shloka-s for practice. Learners will prepare the Khandanvaya for the given shloka-s and document their work in their academic portfolio, showing the question-and-answer sequence that leads to sentence construction. A reflective note should be added, highlighting the clarity gained in understanding sentence structure, word relationships, and the meaning of classical verses through this analytical method.
Experiential-Learning2.11	Identification of Sanskrit Vyakarana by explaining the verses of Laghutrayi	5 verses from each text of Laghutrayi are to be given for explaining verses in the light of Sanskrit Vyakarana and record file is to be presented
Experiential-Learning2.12	Sanskrit Vyakarana Composition of Ayurveda Rasayana and Sarvangasundara commentaries	Ten lines each from Ayurveda Rasayana and Sarvangasundara commentaries are to be given to the learners for detailed examination. Learners will analyze and interpret the commentarial styles, choice of words, explanatory patterns, and clarity of meaning conveyed in each line. The analysis shall be documented in a record file, along with a reflective note on the distinct features of each commentary and how this comparative study enhances their ability to engage with classical commentarial literature.
Experiential-Learning2.13	Translating the classical texts and commentaries	Learners will be given 10 verses from any one classical text and a 10-line paragraph from any one commentary for translation. The task is to

		compose each sentence in the target language while maintaining exactly the same nouns, adjectives, pronouns, tense, voice, verb forms, adverbs, and other components to reflect the same meaning as conveyed in the source language. The translated content shall be submitted as a record file, accompanied by a reflective note on the challenges faced and insights gained in preserving structural and semantic fidelity during translation.
Experiential-Learning2.14	Writing explanatory note in Sanskrit	Learners will be given 2 verses from any one classical text and 5 lines from any one commentary for which they are expected to write an explanatory note (vyākhyā) in Sanskrit. The explanation should convey the intended meaning clearly, using appropriate Sanskrit prose style and technical vocabulary. The completed explanatory notes shall be submitted as a written document, along with a reflective note on the experience of expressing classical ideas in Sanskrit and its impact on their language proficiency and interpretative skills.
Experiential-Learning2.15	Short speech in Sanskrit	Each learner will be assigned a separate topic related to Ayurveda on which they shall compose and present a short speech in Sanskrit. The speech should reflect clarity of thought, correct usage of language, and appropriate integration of Ayurvedic concepts. Learners will record a 5-minute video of their speech and submit it, along with a brief reflective note describing the process of preparation, language usage, and how the activity helped enhance their confidence and articulation skills in Sanskrit.
<b>Modular Assessment</b>		
<b>Assessment method</b>		<b>Hour</b>



Instructions—Conduct a structured Modular assessment. The assessment will be for 75 marks (25 marks per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

Select any 5 important shlokas from the classical texts and ask the scholars to do the following activities

(1) Linguistic skills -25 marks

Scholars are asked to demonstrate important linguistic rules such as linga, vachana, avyaya, karaka, vibhakti, sandhi and samasa in the given sutras

(2) Translation skills - 25 marks

Scholars are asked to translate given portion of samhita from Sanskrit to English/Hindi/local languages.

(3) Critical Analysis - 25 marks

Scholars are asked to do a critical analysis of sutras proposed above.

Or

Any practical in converted form can be taken for assessment.(25 Marks)

Or

Any Experiential Learning as portfolio/reflections/presentations, can be taken as an assessment.(25 Marks)

6

**Module 3 : Manuscriptology & Textual Criticism**

1. Describe the importance of manuscriptology in Ayurveda
2. Discover the different sources of manuscripts
3. Analyse the steps involved in manuscriptology, including textual criticism
4. Review and compare the Ayurveda manuscripts

**Unit 1 Introduction to Manuscriptology**

1. Definition of manuscript
2. Importance of manuscript study
3. Manuscript wealth of Ayurveda
4. Important manuscript centres and libraries
5. Sources of digital manuscripts

**References:** 10,11,12,15,17,29,69,70,71,72,74,75,76

3A	3B	3C	3D	3E	3F	3G
CO5	Define manuscript and discuss the importance of manuscriptology in Ayurveda along with its scopes and limitations	3	Lecture	CC	Knows-how	L&GD
CO5	Analyze the contribution of major manuscript libraries and digital initiatives in the conservation and dissemination of ancient knowledge.	10	Practical3.1	CE	Does	TBL

**Unit 2 Primary steps in manuscriptology**

1. Collection
2. Conservation
3. Cataloguing

#### 4. Introduction to digital catalogues

**References:** 10,11,12,15,16,17,18,29,69,70,71,72,73,74,75,76

3A	3B	3C	3D	3E	3F	3G
CO5	Describe the different steps in manuscriptology -collection , conservation and cataloguing	3	Lecture	CC	Knows-how	PAL
CO5	Identify and analyze entries in descriptive catalogues of Ayurvedic manuscripts,	10	Experiential-Learning3.1	CE	Does	BS,SDL

#### Unit 3 Steps in editing manuscripts

1. Transcription
2. Translation
3. Heuristics, recension and emendation

**References:** 10,11,12,18,20,21,69,70,71,72,73,74,75,76

3A	3B	3C	3D	3E	3F	3G
CO5	Describe the steps in editing a manuscript – transcription, translation,heuristics, recension and emendation	4	Lecture	CC	Knows-how	L&GD
CO5	Document the textual content of selected Ayurvedic manuscript folios with accuracy, including script details and essential manuscript information.	10	Practical3.2	CS	Shows-how	PT

CO5	Conduct a field visit to observe and reflect on real-time methods of conservation, cataloguing and editing of manuscripts.	10	Experiential-Learning3.2	CE	Does	FV
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#### Unit 4 Textual criticism

1. Critical analysis of manuscripts
2. Higher criticism
3. Lower criticism
4. Critical edition
5. Publication of edited manuscripts.

**References:** 10,11,12,16,19,20,21,69,70,71,72,73,74,75,76

3A	3B	3C	3D	3E	3F	3G
CO5	Demonstrate the steps in critical analysis of a manuscript – higher criticism, lower criticism, critical edition and publication	6	Experiential-Learning3.3	CE	Does	RLE,SDL

#### Practical

S.No	Name	Activity details
Practical3.1	Exploration of important manuscript centres and digital sources of Ayurveda manuscripts	<p><b>Teachers' role:</b> Introduce important centres and resources</p> <p><b>Learners' role:</b> (1) They shall identify and map manuscript centres with collection of Ayurveda Manuscripts. (2) Collect list of available Ayurveda manuscripts from any one of the manuscript centre identified. (3) Search and enlist titles of not less than 50 Ayurveda manuscripts available from digital sources.</p>

Practical3.2	Transcription of selected folios of Ayurveda manuscript	<p><b>Teacher's role:</b> Select a manuscript from digital repositories and allot some folios (total number of words not less than 250 words) to PG scholars</p> <p><b>Learners' role:</b> Transcribe the selected folios. Prepare transcription along with primary details of the manuscript</p>
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning3.1	Collection of descriptive catalogues	Learners will identify various online sources that host collections of descriptive catalogues of Ayurvedic manuscripts. From these sources, they will compile a list of 20 Ayurvedic manuscripts along with their descriptive catalogue entries. Learners will then analyze the structure and type of information presented in the selected catalogues—such as title, author, script, material, subject, colophon details, and special notes. A report shall be prepared based on this analysis, accompanied by a reflective note on how understanding catalogue structures contributes to research and exploration in the field of Ayurvedic manuscriptology.
Experiential-Learning3.2	Visit to manuscript centre/available resources	Learners shall either visit a manuscript centre, listen to expert videos describing the functions of manuscriptology, or interact with professionals working in the field. Through this experience, they will collect detailed information about various methods used in the conservation, cataloguing, and critical editing of manuscripts. Based on the gathered inputs, learners will prepare a comprehensive report documenting the processes and techniques observed or learned. A reflective note should also be included, highlighting the relevance of manuscriptology in preserving Ayurvedic heritage and the learner's personal insights from the experience.
Experiential-Learning3.3	Interaction with experts in literary criticism	Learners will identify experts in the field of manuscriptology who are engaged in the critical edition of texts. They will interact with these experts through direct or indirect interview methods to gain insights into different levels of literary criticism, the scope of critical edition, and the challenges involved in the process. Based on the interaction, learners shall prepare a report and present

their findings in class. A reflective note should be included, highlighting the learner's understanding of the significance of critical edition in preserving and interpreting classical texts.

**Modular Assessment**

**Assessment method**

**Hour**

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks (25 marks per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

Assessment methods can be:

1. Transcription of selected folios from Manuscripts or preparation of a descriptive catalogue of one manuscript (25 marks)
2. Preparation of descriptive catalogue of available two manuscripts (25 marks)

Or

Any practical in converted form can be taken for assessment.(25 Marks)

Or

Any experiential as portfolio/reflections/presentations, can be taken as an assessment. (25 Marks)

4

#### Module 4 : Classical methods of Teaching and Learning

1. Identify and understand the key teaching and learning theories across the Samhita texts.
2. Interpret the rationale and relevance of TLM in Samhita texts in the present times.
3. Compare and contrast TLM available in Samhita texts with contemporary Pedagogy and Andragogy.
4. Demonstrate significant TLM available across the Samhita.

#### Unit 1 Teaching and Learning methodology available in Samhita

1. Trividha Gyanopaya
2. Shastra Lakshana
3. Adhyayana Vidhi(Method of learning)
4. Patha, Avabodha, Anushthana
5. Eight segments to be learned in Ayurveda (Ashtaprashna)
6. Adhyapana Vidhi (Method of Teaching)
7. Guru and Shishya Lakshana
8. Tadvidya Sambhasha (colloquium)
9. Sambhasha parishats in Charaka Samhita

**References:** 1,30,31,77,78,81,82,83,84

3A	3B	3C	3D	3E	3F	3G
CO3,CO8	<p>Describe the role of Shastra, Guru, and Shishya Pareeksha in the effective teaching and learning process.</p> <p>Analyze the inter-relationship between Shishya Buddhi and competent Shastra and Guru.</p>	1	Lecture	CAN	Knows-how	L&GD

CO3	Describe the key teaching-learning methods available across the Samhita texts under Trividha Gyanopaya.	2	Lecture	CAP	Knows-how	L&GD
CO3,CO8	Apply and evaluate the effectiveness of traditional teaching methods like Adhyapana Vidhi and Tadvidya Sambhasha through practical demonstration and comparison with contemporary approaches.	4	Practical4.1	CAP	Does	BS
CO3,CO8	Develop and implement a Samhita-based teaching module using traditional methods, and evaluate its effectiveness through learner feedback.	5	Experiential-Learning4.1	CS	Shows-how	BL,D
CO3,CO8	Analyze and compare traditional Ayurvedic teaching methods with modern pedagogical approaches to identify their similarities, differences, and contextual applications.	5	Experiential-Learning4.2	CAN	Does	CBL
CO3,CO8	Evaluate the effectiveness of Adhyayana Vidhi methods from Samhita texts in comparison with modern teaching approaches based on learner engagement and comprehension.	2	Practical4.2	CE	Does	D
<b>Unit 2 Classical teaching</b>						



1. Teaching of Pada, Paada, Shloka Vakya, Vakyaartha and Arthavayava

**References:** 1,30,31,32,77,78,81,82,83,84

3A	3B	3C	3D	3E	3F	3G
CO3,CO8	Analyze the relevance of Teaching Samhita as Vakya, Vakyaartha, and Arthavayava	2	Lecture	CAN	Knows-how	L&PPT
CO3,CO8	Demonstrate learning sutras by heart in Samhita Patha following Pada Patha and Krama Patha (1-2;2-3  3-4  4-5...),	2	Practical4.3	CAP	Does	C_L,REC

**Unit 3 Techniques of interpretation**

1. Tatchilya
2. Kalpana- Pradhanasya, Pradhanen, Guna, Lasha, Vidya, Bhakshya, Ajnya
3. Arthashraya

**References:** 1,80

3A	3B	3C	3D	3E	3F	3G
CO3,CO4	Analyze the importance of Tachchilya, Kalpana (Pradhanasya, Pradhanen, Guna, Lasha, Vidya, Bhakshya, Ajnya) and Arthashraya	2	Lecture	CAN	Knows-how	L&GD
CO3,CO4	Identify Tacheelyadis, Kalpanans and Arthasrayas across various samhitas	4	Practical4.4	CAP	Does	PL
CO4	Analyse various techniques of interpretations across the Samhita	4	Experiential-Learning4.3	CAP	Does	DIS,SDL

**Unit 4 Debate and its terms (Vada & Vadamarga)**

1. Vada and its types
2. Analyse and interpret 44 technical terms related to Vadamarga as per Charaka Samhita

**References:** 1,30,31,32,60,77,78

3A	3B	3C	3D	3E	3F	3G
CO3	Describe Vada and its types	3	Lecture	CC	Knows-how	BS
CO3,CO8	Analyse and interpret Vadamarga as per Charaka Samhita	8	Practical4.5	CAP	Does	BL,TBL
CO3,CO8	Identify Vadamargas in debate, discussions and dialogues	7	Experiential-Learning4.4	CAP	Does	SY,TBL

**Unit 5 Comparison of Teaching Learning Practices in Samhita -with contemporary methods**

1. Smriti hetus (Ashta)in learning
2. Oral method
3. Inquiry method
4. Temporizing method
5. Discovery method
6. Demonstration method
7. Instructional analogy
8. Problem-based approach

**References:** 60

3A	3B	3C	3D	3E	3F	3G
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CO3,CO8	Distinguish classical and modern teaching-learning practices and analyze the role of Smriti Hetus in the learning process.	5	Experiential-Learning4.5	CAN	Does	C_L,PAL
<b>Practical</b>						
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>				
Practical4.1	Tadvidya Sambhasha (colloquium) in learners engagement	<p><b>Teachers' role:</b> (1) Arrange for demonstration of the Tadvidyasambhasha method among PG scholars (2) Select topics and allot them among learners (3) Prepare and explain the evaluation checklist and feedback proforma to assess sambhasha</p> <p><b>Learners' role:</b> (1) Conduct tadvidyasambhasha among peers/UG scholars (2) Evaluate the session based on the evaluation guidelines and participant feedback (3) Prepare a summary report (not less than 500 words)</p>				
Practical4.2	Samhita Teaching-Learning Methods in student engagement	<p><b>Teachers' role:</b> (1) Make a checklist based on Adhyayana Vidhi (Patha, Avabodha, Anushthana, Ashtaprashna) to assess students engagement in class rooms (2) Allot two classes each to each scholar (any ongoing class handled by teachers of Samhita Adhyayana in UG)</p> <p><b>Learners' role:</b> (1) Assess the classes based on the prepared checklist (2) Take feed back from students in the class (3) Prepare report based on the findings</p>				
Practical4.3	Samhita patha method - demonstration	<p><b>Teachers' role:</b> Allot 10 shlokas/ 100 words paragraph to each scholar</p> <p><b>Learners' role:</b> Demonstrate krama-patha and pada-patha and make videos based on the practices.</p>				
Practical4.4	Identification of Tacheelyadi etc. in Samhitas	<p><b>Teachers' role:</b> (1) Sensitize the method of identifying Tacheelyadi and Kalpana through a few examples (2) Allot one chatushka each to scholars</p>				

		<b>Learners' role:</b> (1) Identify Tacheelyadi and Kalpana from the specified portion (2) Summarise the findings
Practical4.5	Interpretation of Vadamarga	<b>Teachers' role:</b> (1) Introduce Vadamargas to scholars (2) Select the most important terms in vadamargas that are most applied in Charakasamhita (3) Allot five Vadamarga padas to each scholar (4) Allot one chatushkas/ 5 chapters to each scholar  <b>Learners' role:</b> (1) Identify the allotted Vadamarga padas in the given chapters (2) Analyse the importance (3) Make a report of findings
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning4.1	Development of a lesson plan based on Samhita TL practices	Scholars shall select any one of the traditional teaching-learning methods available in <i>Samhita</i> , such as <i>Tadvidya Sambhasha</i> or <i>Ashtaprasna</i> , and develop a lesson plan based on that method, focusing on a specific topic. Any approved template for lesson planning may be used. After the teacher evaluates and approves the lesson plan, the PG scholar will conduct the session for UG scholars using the selected method. Feedback shall be collected from the UG students, and the overall quality of the session shall be evaluated by the teacher. A report compiling the lesson plan, student feedback, and reflective observations of the scholar can be prepared.
Experiential-Learning4.2	Adhyapanavidhi in relation to reciprocal teaching and case-based learning	Scholars shall undertake a comparative study of traditional <i>Adhyāpana Vidhi</i> with modern reciprocal or peer teaching methods, and <i>Dr̥ṣṭānta</i> -based teaching with case-based learning approaches. They will explore <i>Sambhāṣā Pariṣats</i> from classical texts as early models of case-based or dialogical learning. Through group discussions and analysis, learners will identify similarities, differences, advantages, and contextual applications of each method. The observations shall be documented in a structured format, along with a reflective note on how traditional and contemporary methods can be meaningfully integrated to enhance Ayurveda education.

Experiential-Learning4.3	Analysis of Tacheelyadi	Scholars will analyze, interpret, and appreciate the <i>Taccīlyādi</i> section with a focus on its linguistic, contextual, and conceptual dimensions. They will study selected references where <i>Taccīlyādi</i> expressions are used, explore their grammatical construction, intended meanings, and implications in the interpretative framework of Ayurveda. The task will culminate in a written document compiling the analysis, along with a reflective note on how understanding <i>Taccīlyādi</i> enhances the ability to appreciate nuanced textual expressions in classical Ayurvedic literature.
Experiential-Learning4.4	Identification of Vadamargas	Scholars shall prepare a checklist based on the principles of <i>Vādamārgas</i> as outlined in classical texts, incorporating elements such as <i>pratijñā</i> , <i>hetu</i> , <i>udāharaṇa</i> , <i>upanaya</i> , <i>nigamana</i> , and indicators of valid and fallacious reasoning. Using this checklist, they will observe or participate in academic debates and discussions—either in classroom settings or scholarly gatherings. Each session will be evaluated based on the checklist criteria. Scholars shall then reflect on the logical strengths, weaknesses, and communicative effectiveness observed during the sessions and document their reflections and evaluations in a structured report.
Experiential-Learning4.5	Comparison of classical and contemporary teaching practices	Scholars shall be given opportunities to compare various modern teaching-learning methods—such as oral method, inquiry method, temporizing method, discovery method, demonstration method, instructional analogy, and problem-based approach—with traditional teaching-learning practices found in <i>Samhitas</i> . They will identify parallels, contrasts, and points of integration between these approaches. Additionally, learners will analyze the role and significance of the eight <i>Smṛti Hetus</i> in the learning process, as described in classical texts. Based on their study and discussion, scholars shall formulate comparative statements, engage in peer discussions, and document their insights along with a reflective note on how this exercise enriched their understanding of pedagogical continuity and innovation in Ayurveda education.
<b>Modular Assessment</b>		
<b>Assessment method</b>		<b>Hour</b>

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks (25 marks per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

Assessment methods can be:

1) Demonstration of any one of the classical T-L methods (25 marks)

2) Demonstration of Samhita patha of selected verses from Samhitas (25 marks)

Or

Preparation of 2 lesson plan based on classical teaching methods (25 marks each)

Or

Any practical in converted form can be taken for assessment. (25 Marks)

Or

Any experiential as portfolio/reflections/presentations, can be taken as an assessment. (25 Marks)

4

## Module 5 : Classical methods of interpretation of Samhita

1. Describe evolution of Tantrayukti as interpretation technique
2. Compare Tantrayuktis from different sources
3. Apply tantrayukti in scientific writings and the review process in clinical settings/ logical reasoning.
4. Apply Tantra Guna and Tantra Dosha in assessing the quality of literature
5. Identify the role of Nyayas in learning Ayurveda

### Unit 1 Tantrayukti - basic description

1. Exploring Tantrayukti as an interpretive method of Samhitas
2. Need of Tantrayukti in understanding Samhitas
3. Description, comparison and classification from various sources

**References:** 38,39

3A	3B	3C	3D	3E	3F	3G
CO3,CO4	Describe the Evolution of Tantrayukti as an interpretation technique and the need for Tantrayukti in understanding Samhitas	1	Lecture	CAP	Knows-how	L&GD
CO3,CO4	Demonstrate the usage of Tantrayuktis from Arthasastra and Brihat-trayee, and classify them based on their functional roles in textual interpretation.	2	Practical5.1	CAP	Does	PT
CO3,CO4	Analyze the possible causes of difference in the number of	2	Experiential-Learning5.1	CE	Does	DIS

	tantrayuktis postulated by different acharyas					
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### Unit 2 Application of Tantrayukti - 1

1. Use of Tantrayukti in the review process
2. Clinical application of Tantrayukti

References: 38,39

3A	3B	3C	3D	3E	3F	3G
CO3,CO4	Describe the use of Tantrayukti in the review process of literature	1	Lecture	CC	Knows-how	L&GD
CO4	Design a checklist based on Tantrayukti to review articles	2	Practical5.2	CS	Does	C_L,LS
CO4	Analyse clinical applications of Tantrayukti by exploring anukta-lesokta practices among practitioners	3	Experiential-Learning5.2	CAP	Does	RLE

### Unit 3 Application of Tantrayukti - 2

1. Research application of Tantrayukti
2. Tantrayukti as a tool to elicit anukta-lesokta aspects of Samhitas

References: 1,39

3A	3B	3C	3D	3E	3F	3G
CO4,CO5	Analyse Research applications of Tantrayukti	1	Lecture	CC	Knows-how	L&GD



CO3,CO4,CO5	Demonstrate the use of Tantrayuktis in completed Research projects	2	Practical5.3	CAP	Does	D
CO3,CO4	Analyse the clinical importance of Tantrayukti	2	Experiential-Learning5.3	CAP	Knows-how	DIS

#### Unit 4 Tantraguna

1. Definitions and classification of Tantraguna
2. Identification of Tantraguna in Samhitas
3. Applications of Tantraguna

References: 38,39

3A	3B	3C	3D	3E	3F	3G
CO3,CO4	Describe the Tantraguna	1	Lecture	CC	Knows-how	L&PPT
CO3,CO4	Develop a criteria based on Tantraguna to evaluate quality of textbooks and evaluate textbooks based on the criteria	2	Practical5.4	CS	Does	JC
CO3,CO4,CO8	Analyze the awareness of Tantraguna in their writing style, structure, and content	3	Experiential-Learning5.4	CE	Shows-how	TPW

#### Unit 5 Introduction to Tantradosha

1. Definitions and classification of Tantradosha
2. Identification of Tantradosha
3. Application (How to eliminate Tantradosha)

References: 38,39

3A	3B	3C	3D	3E	3F	3G
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CO4	Describe the need and importance of understanding samhitas	2	Lecture	CAN	Knows-how	DIS
CO3,CO4	Describe Tantradosha and identify importance of eliminating it	3	Lecture	CAN	Knows-how	L&GD
CO3,CO4,CO8	Prepare guidelines to avoid Tantradosha and evaluate contemporary articles/textbooks based on Tantradosha	6	Experiential-Learning5.5	CS	Shows-how	JC,LS

### Unit 6 Exploration of Nyaya

1. Types and Importance
2. Description of Samhitokta-Nyaya
3. Illustration in Samhitas

**References:** 30,31,32

3A	3B	3C	3D	3E	3F	3G
CO3,CO4	Describe the types and importance of Nyayas	1	Lecture	CC	Knows-how	L&GD,PrBL
CO3,CO4	Identify and categorize <i>Nyayas</i> from <i>Brihat-trayee</i> and their commentaries based on contextual relevance and functional classification.	6	Practical5.5	CAP	Does	BL,BS
CO3,CO4	Analyze Samhitokta-Inyaya with the help of mulagrantha and commentaries	5	Experiential-Learning5.6	CAN	Does	BS,IBL

CO4	Analyze the available classical Nyaya for their clinical application.	3	Practical5.6	CE	Shows-how	C_L,RLE
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### Unit 7 Application of Nyaya

1. Importance in the learning process
2. Utility in physiology, psychology, diagnosis and therapeutics

**References:** 30,31,32,38,39

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO8	Analyse the importance of Nyaya in learning process in comparison with Instructional Analogy	3	Practical5.7	CAP	Does	D,L&GD
CO3,CO4,CO8	Demonstrate the application of classical Nyayas as tools to establish principles within Kriya Sharira, Roganidana, and Kayachikitsa domains.	5	Experiential-Learning5.7	CAP	Does	C_L,PBL

### Practical

S.No	Name	Activity details
Practical5.1	Comparison and classification of Tantrayukti	<p><b>Teachers' role:</b> (1) Divide Tantrayukties among the scholars (5-8 tantrayukties for a scholar) (2) Suggest some criteria for classification (Eg. Tantrayukties for cross-referencing, Tantrayukties for anukarthagrahana, Tantrayukties for terminology etc.)</p> <p><b>Learners' role:</b> (1) Compare the given Tantrayukties based on descriptions in Arthasastra and Brihat-trayee (2) Classify the given tantrayukties based on the suggested criteria (3) Summarise the observations</p>

Practical5.2	Use of Tantrayukti in review process	<p><b>Teacher's role:</b> (1) Give hints on application of Tantrayukti in review process. (Eg. Uddesa, Nirvesa are similar to abstract and full paper, Swasmjna and Padartha are relevant in preparing key words, Vidhana is relevant in structuring the article based on guidelines like IMRADS etc.),</p> <p><b>Learners' role:</b> (1) Considering the hints, scholars will prepare a checklist based on Tantrayuktis to review articles considering the author guidelines of standard journals (2) Review at least two articles using the checklist</p>
Practical5.3	Evaluating Research Projects based on Tantrayukti	<p><b>Teachers' role:</b> (1) Sensitize scholars about application of Tantrayuktis in research process (2) Demonstrate extended application of tantrayukti based checklist (prepared for articles) in reviewing research theses (3) Allot two research theses to each scholar</p> <p><b>Learners' role:</b> (1) Review the given theses based on the checklist already prepared (2) Prepare review report</p>
Practical5.4	Application of Tantraguna in evaluating Quality of Textbooks	<p><b>Teachers' role:</b> Sensitize the task by giving hints on the criteria (Eg: Sumadyasawi.... is related to the popularity in the community, aptajanapujita comparable with review by eminent scholars, kramagatartha comparable with proper sequencing of the content etc.)</p> <p><b>Learners' role:</b> (1) Conduct a group discussion to develop items in the criteria considering each tantraguna as hinted by the teacher (2) Prepare criteria (3) Evaluate two textbooks (Sangrahagranthas, later texts, current literature etc.) based on the criteria.</p>
Practical5.5	Nyaya mentioned in Samhita	<p><b>Teachers' role:</b> (1) Identify sample Nyayas from any of the Samhitas and Nyayas (2) Divide Samhita portions among scholars</p> <p><b>Learners' role:</b> (1)With the help of commentaries and textbooks on Nyaya, identify Nyayas available in Samhitas (2) Prepare list and give primary description on each Nyaya</p>

		Scholars will extract, critically analyse and prepare charts, posters /reports on different Nyayas available in Samhitas.
Practical5.6	Clinical application of Nyaya	<b>Teachers' role:</b> (1) Allot two clinically important Nyayas (Eg. Dhatu poshana nyayas) to scholars <b>Learners' role:</b> (1) Interact with minimum three Physicians about the significance of given Nyayas in clinical practice (Nyayas suggested by Physicians also can be considered) (2) Prepare summary of findings
Practical5.7	Application of Nyaya in Learning Process	<b>Teachers' role:</b> (1) Introduce the concept of Instructional analogy in contemporary pedagogy (2) Allot five each Nyayas to each scholar <b>Learners' role:</b> (1) Have an indepth analysis the Nyayas allotted (2) Analyse importance of the Nyayas in the background of Instructional analogy (3) Interact with UG scholars about the effectiveness of one or two nyayas in communicating the ideas (4) Prepare summary of the findings
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning5.1	Causes of difference in tantrayukti	Different <i>Tantrayukti</i> -s shall be distributed among the scholars. Each scholar will analyze the varying definitions and descriptions of their allocated <i>Tantrayukti</i> as found in different <i>Samhitas</i> . They will study relevant examples to understand the context in which the <i>Tantrayukti</i> is applied and critically examine how and why the definitions differ across texts. Scholars shall explore possible reasons such as textual purpose, style of the author, or evolution of interpretive strategies. Their findings shall be compiled into a document along with a reflective note on how such an analysis deepens their understanding of classical textual frameworks and enhances interpretative competence.
Experiential-Learning5.2	Clinical application of tantrayukti	Scholars shall prepare a simple and focused questionnaire to interview expert Ayurveda practitioners to elicit insights into their practical application of tantrayukti in clinical practice. The questionnaire will specifically explore:

		<ul style="list-style-type: none"> <li>• Whether the practitioners rely on unstated or understated principles from <i>Samhitas</i></li> <li>• Whether they apply principles from other contexts (<i>cross-application</i>) while treating specific diseases</li> <li>• Whether they ever deviate from cardinal principles and, if so, why</li> </ul> <p>After conducting the interviews, scholars will analyze the responses and identify where and how <i>Tantrayukti</i>-s are implicitly or explicitly reflected in the practitioners' reasoning and decisions. A document compiling the responses, analysis, and a reflective note on how traditional interpretive tools are actively shaping clinical reasoning in practice shall be submitted.</p>
Experiential-Learning5.3	Clinical importance of Tantrayukti	<p>Scholars will prepare a questionnaire based on selected Tantrayuktis to interview experienced Ayurvedic practitioners. The focus of the questionnaire will be to explore clinical decisions and therapeutic practices that are not explicitly mentioned in the Samhitas but are applied in practice. Scholars will identify how practitioners use implicit logic, contextual interpretation, or extrapolation in clinical scenarios. Interviews may be conducted directly or indirectly, depending on feasibility. The responses will be analysed and compared with definitions and examples of Tantrayuktis available in classical texts.</p> <p>Scholars will document the observations in a structured format, highlighting correlations between the practical applications described by the practitioners and specific Tantrayuktis. Reflective notes on how traditional reasoning models remain relevant in current clinical decision-making will be added.</p>
Experiential-Learning5.4	KAP survey among authors on Tantraguna	<p>Scholars shall prepare a structured survey questionnaire aimed at assessing the <b>knowledge, attitude, and practice</b> (KAP) related to the application of <i>Tantraguna</i>-s among Ayurveda authors. The questionnaire should include items that explore:</p> <ul style="list-style-type: none"> <li>• Awareness and understanding of each <i>Tantraguna</i></li> </ul>

		<ul style="list-style-type: none"> <li>• The perceived importance and relevance of <i>Tantraguṇa</i>-s in writing and interpreting texts</li> <li>• Actual practices adopted by authors to maintain <i>Tantraguṇa</i>-s in their scholarly or clinical writings</li> </ul> <p>A mini survey shall be conducted among a minimum of five authors (teachers, editors, or researchers in Ayurveda). The collected data will be analyzed, and the findings presented in a brief report, along with a reflective note on the contemporary relevance of <i>Tantraguṇa</i>-s and the gaps or strengths identified in current practices.</p>
Experiential-Learning5.5	Identifying Tantradoshas in current literature	<p>Scholars shall prepare a checklist based on classical definitions of <i>Tantradoṣa</i>-s—such as <i>Adīkta</i>, <i>Ativistara</i>, <i>Apunarukta</i>, <i>Ananukta</i>, <i>Asamartha</i>, <i>Asambaddha</i>, etc.—as described in traditional texts. Each <i>Tantradoṣa</i> in the checklist should include:</p> <ul style="list-style-type: none"> <li>• Definition</li> <li>• Indicators (how to recognize it in a text)</li> <li>• Examples (if applicable)</li> <li>• Remarks (space for evaluator’s notes)</li> </ul> <p>Using this checklist, learners will evaluate selected current articles or textbooks from the field of Ayurveda. The evaluation will focus on identifying whether any <i>Tantradoṣa</i>-s are present, and how they impact the clarity, precision, or coherence of the content. A compiled evaluation report shall be submitted, including key observations and a reflective note on how awareness of <i>Tantradoṣa</i>-s can improve the quality of scholarly writing and textbook development.</p>
Experiential-Learning5.6	Identification of Samhitokta-nyaya	<p>Different <i>Nyāya</i>-s shall be divided among the scholars. Each scholar will explore references where their allotted <i>Nyāya</i> is either explicitly mentioned or implicitly applied in the <i>Samhitas</i> and their commentaries. They will analyze the context, purpose, and impact of the <i>Nyāya</i> in enhancing the understanding of the associated concept or principle. Special attention shall be given to how the</p>

		<i>Nyāya</i> aids in simplifying complex ideas, reinforcing logic, or supporting interpretation. The findings will be compiled into a document with examples and a reflective note highlighting the value of <i>Nyāya</i> -s as interpretative tools in Ayurvedic literature.
Experiential-Learning5.7	Integration of Nyaya for Diagnosis and treatment	<p>Scholars shall apply selected <i>Nyāya</i>-s (logical maxims) to establish or support core principles in <i>Kriyā Śarīra</i>, <i>Roganidāna</i>, and <i>Kāyacikitsā</i>. For each domain, scholars will:</p> <ul style="list-style-type: none"> <li>• Choose appropriate <i>Nyāya</i>-s that align with the underlying logic of the principle</li> <li>• Identify how these <i>Nyāya</i>-s help in articulating, validating, or applying the principles in practical or conceptual terms</li> <li>• Search and cite examples from other Ayurvedic texts beyond <i>Bṛhatrayī</i></li> </ul> <p>A comparative document shall be prepared, showing how <i>Nyāya</i>-s serve as interpretative frameworks across various disciplines in Ayurveda. A reflective summary should be included on the utility of classical <i>Nyāya</i>-s in strengthening reasoning and bridging theory with practice.</p>

### Modular Assessment

#### Assessment method

#### Hour

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks (25 marks per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

Assessment methods can be:

1. Identification of Tantrayukti in given instances (25 marks)
2. Review an article based on a checklist prepared based on tantrayukti (25 marks)

Or

4



Identify tantraguna and tantradosha in given texts (50 marks)

Or

Any practical in converted form can be taken for assessment. (25 Marks)

Or

Any experiential as portfolio/reflections/presentations, can be taken as an assessment. (25 Marks)

## Module 6 : Samhita Oriented Research

1. Analyse methods of classical research in the background of Darsana and Ayurveda
2. Organise pramana vijnana and different pareeksha protocols and align them in a research perspective
3. Apply different pareeksha protocols of Ayurveda in the context of assessment of health, drug/formulations, diagnostics and therapeutics

### Unit 1 Jijnasa : The path of Inquisitiveness

1. Application of the shodasha tatwa of Nyayadarshana in the Research process
2. Application of Pareeksha and Pramana in Research
3. Utility of Pratyaksha, Anumana, Upamana, Aptopadesha and Yukti in Research
4. The methods of designing research questions based on Samhita - taking Katidha purusheeyam shareeram of Charaka Samhita as a model

References: 1,56,57,58

3A	3B	3C	3D	3E	3F	3G
CO5,CO7	Illustrate the role of Nyayokta Shodasha Padartha, Chaturvidha Pareeksha, and Pramana as classical methodological tools in Ayurvedic research.	5	Lecture	CAP	Knows-how	FC
CO5,CO7	Evaluate classical research methods in comparison with contemporary research approaches.	4	Practical6.1	CE	Knows-how	DIS
CO5,CO7	Design research questions taking Katidha purusheeyam shareeram of Charaka Samhita as a model	3	Practical6.2	CS	Shows-how	BS,DIS

### Unit 2 Prayogam : The methodologies of research execution based on Samhita

1. Six Sambhasha of Charaka Samhita as models of research.
2. Karya abhinirvritti ghatakas (Dasavidha pareekshya bhava) in research application

3. Role of Hetwabhasa in research and diagnosis
4. Types of association (yadricchha, samyoga, vyapti, karya-karana sambandha and Samavaya)

**References:** 1,56,57

3A	3B	3C	3D	3E	3F	3G
CO5,CO7	Analyse Sambhasha of Charaka Samhita to formulate methods of discussion in research	6	Experiential-Learning6.1	CAP	Does	PBL
CO5,CO7	Analyze each stage of the research process through the framework of Kāryābhinirvṛtti Ghaṭaka, identifying the role of each causal factor	3	Practical6.3	CE	Does	DIS,PL
CO5,CO6	Identify different types of Hetvābhāsa and analyze their occurrence in Ayurvedic research and diagnostic reasoning	5	Lecture	CE	Knows-how	BS,FC
CO5,CO6	Analyse different types of association (yadricchha, samyoga, vyapti, karya-karana sambandha and Samavaya) in relation to research process	3	Practical6.4	CAN	Knows-how	D,DIS

**Unit 3 Prayojanam : The methods of evaluation / Samhita based outcome evaluation**

1. Aushdha Pareeksha paddhati in Ayurveda
2. Roga-Rogi pareeksha paddhati in Ayurveda
3. Yoga(formulation) Pareeksha paddhati in Ayurveda
4. Dhatusamya Pareeksha
5. Generation of proof for Siddhantas in Ayurveda

**References:** 1

3A	3B	3C	3D	3E	3F	3G
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CO5,CO6	Perform Aushdha/dravya Pareeksha paddhati in Ayurveda as a method of drug analysis	3	Practical6.5	PSY-ADT	Does	PBL
CO5,CO6	Develop and evaluate a structured assessment tool for Roga-Rogee Pareeksha based on classical principles and clinical applicability.	5	Experiential-Learning6.2	CS	Shows-how	D,DIS
CO5,CO6	Analyse the probable logic behind the inclusion of ingredients in aushadhayogas	5	Experiential-Learning6.3	CAN	Knows-how	JC
CO5,CO6	Evaluate Dhatu Samya Pareeksha as a method of health assessment based on its applicability, effectiveness, and popularity in clinical practice.	4	Practical6.6	CE	Does	D

#### Unit 4 Verbal & Documentary communication of Research outcome based on Samhita

1. Utilization of Panchavayava Vakya, Tantra yukti in research
2. Pancha avayava vakya in framing research problems and reporting.

**References:** 1,39,56,57,58

3A	3B	3C	3D	3E	3F	3G
CO5,CO7	Apply traditional Indian logical methodology(Pañcāvayava vakya model) to systematically articulate and validate research findings.	5	Experiential-Learning6.4	CE	Shows-how	DIS,JC
CO5	Conduct a debate or discussion by employing the traditional Indian logic framework of Pañcāvayava effectively.	5	Experiential-Learning6.5	CE	Does	JC

#### Practical

S.No	Name	Activity details
Practical6.1	Comparison of classical research methods with contemporary research	<p><b>Teachers' role:</b> (1) Teacher will provide list of of technical terms (Eg. Pramana, Pratyaksha, Anumana and other terms) related to classical research from Nyayadarshana, Charakasamhita and other relevant sources. (2) Divide the enlisted terms among scholars to get their classical definitions.</p> <p><b>Learners' role:</b> (1) Discuss and identify comparable terms in contemporary research, in the background of their knowledge in contemporary research. (2) Summarise the observations.</p>
Practical6.2	Research questions based on Katidha purusheeya	<p><b>Teachers' role:</b> (1) Instruct to list questions raised in Katidhapurusheeya (2) Divide the questions among students.</p> <p><b>Learners' role:</b> (1) Comprehend the meaning and intention of the questions and nature of corresponding answers. (2) Putting the questions as a model lets them select relevant research areas related to contemporary issues and frame questions on those areas. (3) Summarise the findings</p>
Practical6.3	Research process mapped with karya abhinivritti ghataka	<p><b>Teachers' role:</b> (1) Give hints on how Karya abhinivritti ghatakas are reflected in the research process (Eg, Karana-researcher, Karana-materials and methods, etc.) (2) Help to prepare a checklist based on these items to evaluate research articles (3) Assign a minimum of three research articles to each scholar</p> <p><b>Learners' role:</b> (1) Prepare a checklist as hinted by the teacher, (2) Evaluate the given articles based on the checklist, (3) Prepare a summary</p>
Practical6.4	Different types of Association in relation to research process	<p><b>Teachers' role:</b> Introduce different types of association (yadricchha, samyoga, vyapti, karya-karana sambandha and Samavaya)</p> <p><b>Learners' role:</b> Analyse different research designs (starting from case report, upto Meta analysis) to see which type of association is examined in each of them (2) Tabulate the observations</p>

Practical6.5	Classical method of drug analysis (Aushadha pariksha paddhati)	<p><b>Teachers' role:</b> (1) Introduce dravyapareeksha as described in Charakasamhita Vimanasthana 8th chapter (Karanam punarbheshajam, tasya pareeksha) (2) Allot five patients (undergoing treatment)</p> <p><b>Learners' role:</b> (1) Analyse the cases to see how much dravyapareeksha is complied in the cases. (2) Summarise the observations</p>
Practical6.6	Dhatu samya pareeksha	<p><b>Teachers' role:</b> Conduct a discussion on how the questions in the dhatusamya pareeksha become most popular among health consultations.</p> <p><b>Learners' role:</b> Review the available tools for dhatu samya pareeksha. Collect data using the proforma and analyse the results for a larger population. Analyse how dhatu samya pareeksha is useful in fixing the health status of a population.</p>
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning6.1	Modeling Sambhasha parishat in research discussions	<p>Scholars shall select a minimum of three published dissertation reports and focus their analysis on the discussion sections of each. The objective is to identify how multiple ideas, perspectives, or textual references have been incorporated in interpreting the findings and shaping the final conclusions, reflecting the spirit of <i>Sambhāṣā Pariṣat</i>, where dialogue and diverse viewpoints enrich understanding.</p> <p>Learners will:</p> <ul style="list-style-type: none"> <li>Analyze how differing viewpoints or textual interpretations were brought together</li> </ul>

		<ul style="list-style-type: none"> <li>• Identify references to classical principles, clinical reasoning, or interdisciplinary insights</li> <li>• Note how conflicting or complementary perspectives were addressed</li> </ul> <p>Based on their findings, scholars shall prepare a written reflection on the value of integrating diverse ideas in research interpretation. They will also initiate structured peer discussions to share insights and foster collective thinking, thereby experiencing the dialogical process central to <i>Sambhāṣā</i>.</p>
<p>Experiential-Learning6.2</p>	<p>Developing proforma for Roga-rogee pareeksha paddhati</p>	<p>Scholars shall be allotted the following sequential tasks aimed at enhancing their practical understanding of <i>Roga-Rogī Parīkṣā</i>:</p> <ol style="list-style-type: none"> <li>1. Review existing protocols: Critically review current protocols and methods used in <i>Roga-Rogī Parīkṣā</i> with a focus on identifying conceptual gaps, practical inadequacies, or limitations in clinical utility.</li> <li>2. Design a proforma/questionnaire: Based on the review, conceive and draft a structured proforma or questionnaire for a specific assessment, such as <i>Agni</i> assessment, <i>Prakṛti</i> analysis, <i>Vyādhi Avasthā</i>, etc.—grounded in classical references and clinical reasoning.</li> <li>3. Data collection: Use the drafted tool to collect data from a small number of subjects to test its applicability and clarity.</li> <li>4. Feasibility analysis and recommendations: Analyze the feasibility of the proforma in real-time clinical settings, looking at factors like time taken, ease of understanding, practitioner adaptability, and patient response.</li> <li>5. Reflect and propose: Reflect on the strengths and limitations of the developed tool and propose necessary modifications. Scholars shall document their experience and suggest steps for further validation studies to improve standardization in Ayurvedic clinical assessments.</li> </ol>

<p>Experiential-Learning6.3</p>	<p>Analysis of aushadha yogas</p>	<p>Scholars shall select five commonly used Auśadha Yogas and undertake a multidimensional analysis that includes classical, practical, and research-based perspectives. The task includes:</p> <ol style="list-style-type: none"> <li>1. Indication and usage analysis: Study the classical indications of each selected yoga along with their patterns of popular usage in contemporary clinical practice.</li> <li>2. Ingredient-level exploration: Analyze each ingredient individually to understand its pharmacological properties (<i>rasa, guṇa, vīrya, vipāka, karma</i>) and its specific role in the formulation.</li> <li>3. Therapeutic synergy: Examine how the combination of ingredients contributes to the overall therapeutic effect, including the rationale for inclusion, complementary or synergistic actions, and balancing components.</li> <li>4. Review of recent research: Review available scientific or clinical research (published papers, case studies, trials) to assess modern insights into the pharmacodynamics, efficacy, or pharmacognosy of these yogas.</li> </ol> <p>Scholars will compile and present their observations in a detailed document with reflective notes on the formulation logic, classical validation, and scope for further investigation or standardization.</p>
<p>Experiential-Learning6.4</p>	<p>Use of Pancha avayava in reporting and discussion</p>	<p>Scholars shall analyze completed dissertation reports through the lens of the Pañcāvayava model of classical reasoning, which includes:</p> <ol style="list-style-type: none"> <li>1. Pratijñā – identifying the hypothesis or the central research question/claim</li> <li>2. Hetu – examining the materials, methods, and observations used to support the claim</li> <li>3. Udāharaṇa – locating references to previous studies, classical texts, or supporting literature used as exemplars</li> <li>4. Upanaya – analyzing how discussions and interpretations connect the evidence to the claim</li> </ol>



		<p>5. Nigamana – identifying the conclusion and how it logically follows from the earlier components</p> <p>This analysis will enable scholars to understand how classical logic can structure modern research reporting. They will document the presence and expression of each component in selected dissertations and reflect on how the <i>Pañcāvayava</i> model enhances clarity, coherence, and epistemological grounding in Ayurvedic research.</p>
Experiential-Learning6.5	Pancha avayava vakya in discussions	<p>Scholars shall initiate guided discussions in undergraduate classes using the Pañcāvayava Vākya framework to explore clinical or theoretical concepts in Ayurveda. Each discussion will be structured and documented under the five classical components:</p> <ol style="list-style-type: none"> <li>1. Pratijñā – The central proposition or claim being examined (e.g., “Tikta rasa is beneficial in skin disorders”)</li> <li>2. Hetu – Logical reasoning or cause supporting the claim (e.g., “Because Tikta has kledahara and raktashodhaka properties”)</li> <li>3. Udāharaṇa – Supporting examples from classical texts, modern studies, or clinical observations</li> <li>4. Upanaya – Connection of the above reasoning to the present context through further explanation or application</li> <li>5. Nigamana – Final conclusion drawn from the discussion</li> </ol> <p>The documented discussion will help in demonstrating how traditional logical methods can enhance clarity and critical thinking in academic discourse. Reflective notes may be added by scholars on how the process influenced the learners’ understanding.</p>
<b>Modular Assessment</b>		
<b>Assessment method</b>		<b>Hour</b>

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks (25 marks per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

1. Identify karya abhinivritti ghatakas in completed research projects (25 marks)

Or

Identify Pancha avayava vakya in completed research projects (25 marks)

2. Perform aushadha/drvaya pareeksha paddhati in given drugs/formulations (25 marks)

Or

Any practical in converted form can be taken for assessment.(25 Marks)

Or

Any experiential as portfolio/reflections/presentations, can be taken as an assessment. (25 Marks)

4

## Module 7 : Translational Ayurveda

1. Describe the importance, key areas and challenges of translational research in Ayurveda
2. Explain the basics of fundamental research, literary research, Genomic sciences, Metabolomics, Human Gut Microbiome and Bioinformatics
3. Appreciate the scope of integrating modern scientific advancements with the knowledge system of Ayurveda

### Unit 1 Fundamentals of research in Ayurveda

1. Importance, areas and challenges of Translational Research in Ayurveda
2. Translational Medicine
3. Evidence-Based Medicine and its Framework

References: 26

3A	3B	3C	3D	3E	3F	3G
CO7	Describe translational Medicine, Evidence-Based Medicine and its framework	1	Lecture	CK	Knows-how	L&PPT
CO7	Identify areas of translational research in Ayurveda	4	Practical7.1	CAP	Does	LS
CO7	Analyze the importance and challenges of Translational Research	4	Experiential-Learning7.1	CE	Does	DIS,TPW

### Unit 2 Literary Research

1. Fundamentals of Computational Linguistics
2. Stylometry
3. Application of Computational Linguistics
4. Stylometry in Samhita-based research

<b>References: 53,54</b>						
<b>3A</b>	<b>3B</b>	<b>3C</b>	<b>3D</b>	<b>3E</b>	<b>3F</b>	<b>3G</b>
CO7	Describe Computational Linguistics and Stylometry.	1	Lecture	CK	Knows-how	L&GD
CO7	Identify the uses of computational tools in linguistic analysis.	3	Practical7.2	CAP	Does	FV
CO7	Analyze E-learning tools of Sanskrit, e-content creation of Sanskrit Ayurvedic texts and language analysis tools for Sanskrit and other relevant regional languages through Interaction with the Computational Linguistics experts and Stylometry.	4	Experiential-Learning7.2	CAN	Does	IBL,TBL

### **Unit 3 Genomic Sciences**

1. Introduction to Genomics
2. Genome Structure and Organization
3. Genomic Variation
4. Gene Expression and Regulation
5. Genomic Technologies
6. Integration of Ayurveda and Genomics

**References: 22,23,24,25,52**

<b>3A</b>	<b>3B</b>	<b>3C</b>	<b>3D</b>	<b>3E</b>	<b>3F</b>	<b>3G</b>
CO7	Describe the history, scope, and significance of genomics in medicine and Ayurveda.	2	Lecture	CC	Knows-how	L&PPT
CO7	Conduct a scoping review on the organisation of genomes, different types of genomic	3	Practical7.3	CAP	Does	LS

	variations, mechanisms of gene expression, regulation, and epigenetics					
CO7	Analyze how Ayurvedic principles can be integrated with genomic data to understand individual health, disease susceptibility, and treatment responses	4	Experiential-Learning7.3	CAN	Does	SDL,TBL

#### Unit 4 Metabolomics

1. Introduction to Metabolomics
2. Analytical Techniques used in metabolomics
3. Applications of Metabolomics

References: 52

3A	3B	3C	3D	3E	3F	3G
CO7	Describe the scope and significance of metabolomics in biological and clinical research.	1	Lecture	CC	Knows-how	L&PPT
CO7	Describe the composition and function of the metabolome and various analytical techniques used in metabolomics	1	Lecture	CC	Knows-how	L&GD
CO7	Identify the applications of metabolomics in medicine, pharmacology, nutrition and Ayurveda through interaction with experts	4	Experiential-Learning7.4	CAP	Does	IBL
CO7	Conduct a scoping review on how metabolites reflect physiological and pathological states of humans	2	Practical7.4	CAP	Does	LS

#### Unit 5 Human Gut Microbiome

1. Introduction to the Gut Microbiome
2. Microbial Diversity
3. Techniques for Studying the Microbiome
4. Microbiome and Health

**References: 55**

3A	3B	3C	3D	3E	3F	3G
CO7	Describe the composition, function and the factors regulating the composition of human gut microbiome	2	Lecture	CC	Knows-how	L&GD
CO7	Conduct a scoping review to identify the diversity of microorganisms in the gut and techniques used to study the gut microbiome.	4	Practical7.5	CAP	Does	LS
CO7	Analyze the relationship between the gut microbiome and various health conditions, including metabolic diseases, autoimmune disorders, and mental health, through a scoping review and interaction with experts.	5	Experiential-Learning7.5	CAN	Does	TPW

### Unit 6 Bioinformatics

1. Introduction to Bioinformatics
2. Biological Databases
3. Systems biology

**References: 51**

3A	3B	3C	3D	3E	3F	3G
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CO7	Describe the scope and importance of bioinformatics in Ayurveda	2	Lecture	CC	Knows-how	L&GD
CO7	Identify key biological databases, such as GenBank, EMBL, and Protein Data Bank, Apply retrieved biological data from public databases in basic bioinformatics analysis or case-based learning scenarios.	4	Practical7.6	PSY-GUD	Shows-how	D,LS
CO7	Conduct a group discussion to explore the key areas and applications of Systems biology with the Ayurveda knowledge system.	5	Experiential-Learning7.6	CAN	Does	PrBL

### Practical

S.No	Name	Activity details
Practical7.1	Scoping review to identify the areas of translational research in Ayurveda	<p><b>Teachers' role:</b></p> <ol style="list-style-type: none"> <li>(1) Guide learners in formulating a focused research question related to translational research in Ayurveda.</li> <li>(2) Explain the steps of scoping review methodology with examples.</li> <li>(3) Provide templates for inclusion/exclusion criteria, search strategy, data extraction, and synthesis.</li> </ol> <p><b>Learners' role:</b></p> <ol style="list-style-type: none"> <li>(1) Define the objective of the scoping review and prepare a detailed review plan.</li> <li>(2) Search multiple databases and relevant sources to gather studies.</li> <li>(3) Screen titles and abstracts, review full texts, and extract data using a standardized format.</li> <li>(4) Summarize findings in tables or matrices and identify key themes, concepts, and research gaps.</li> <li>(5) Engage with experts/stakeholders to validate findings and ensure practical relevance.</li> </ol>

<p>Practical7.2</p>	<p>Field Visit to a centre using computational linguistic tools for research.</p>	<p><b>Teachers' role:</b>  (1) Identify and coordinate a visit to a centre actively using computational linguistic tools for research.  (2) Brief learners about the objectives and key aspects to be observed during the visit.  (3) Facilitate interaction with experts at the centre to ensure focused learning.</p> <p><b>Learners' role:</b>  (1) Participate in the field visit and interact with researchers to understand the scope, tools, and applications of computational linguistics.  (2) Note specific examples of tools used, research problems addressed, and outcomes achieved.  (3) Reflect on the potential use of such tools in Ayurveda-related research.  (4) Prepare and present a structured report based on the observations and expert interactions.</p>
<p>Practical7.3</p>	<p>Scoping review on the organization of genomes, different types of genomic variations, mechanisms of gene expression, regulation, and epigenetics</p>	<p><b>Teachers' Role:</b> (1) Explain the steps involved in conducting a scoping review. (2) Provide a template or guideline for planning and reporting the review. (3) Assist in selecting the theme/topic and suggest suitable databases and sources for literature search.</p> <p><b>Learners' Role:</b> (1) Define the research question or objective of the scoping review. (2) Create a detailed review protocol including inclusion/exclusion criteria, search strategy, and data extraction methods. (3) Conduct a comprehensive literature search across multiple databases. (4) Screen the titles, abstracts, and full texts to identify relevant studies. (5) Extract data using a standardized format and summarize findings in tables or matrices. (6) Synthesize the findings to identify key themes, concepts, and research gaps. (7) Prepare a structured report including charts or visual summaries of the findings.</p>



<p>Practical7.4</p>	<p>Scoping review of literary sources to provide an overview of the available body of knowledge and key concepts</p>	<p><b>Teachers' Role:</b> (1) Introduce the concept, importance, and steps of conducting a literature review. (2) Provide a guideline/template for planning and documenting the review process. (3) Assist learners in selecting a topic and demonstrate how to access databases and use search strategies.</p> <p><b>Learners' Role:</b> (1) Define a specific research question or objective for the review. (2) Prepare a detailed plan including inclusion and exclusion criteria, search strategy, and data extraction methods. (3) Conduct a comprehensive search across multiple databases and sources. (4) Screen titles and abstracts to shortlist relevant studies. (5) Review the full texts and finalize the list of included studies. (6) Extract relevant data using a standardized form. (7) Summarize findings in tables or matrices. (8) Synthesize the information to identify patterns, key themes, and gaps in the existing literature. (9) Prepare a structured report with visual aids like charts, graphs, or concept maps.</p>
<p>Practical7.5</p>	<p>Scoping review of literary sources to identify diversity of microorganisms in the gut and techniques used to study the gut microbiome.</p>	<p><b>Teacher's Role:</b> (1) Help students to design the scoping review framework. (2) Guide to define the research question or objective of the review. (3) Facilitate understanding of key scientific terms and concepts.(4) Support students in analyzing, interpreting, and synthesizing findings into meaningful categories. (5) Oversee the report writing and presentation preparation process.</p> <p><b>Learner's Role:</b> (1) Define the research question or objective of the review. (2) Create a detailed plan outlining the methods and procedures for the review. Include criteria for inclusion and exclusion of studies, search strategy, and data extraction methods. (3) Conduct a comprehensive search of multiple databases and sources to gather relevant studies. Screen titles and abstracts to identify potentially relevant studies. (4) Review full texts to determine which studies meet the inclusion</p>

		criteria. (5) Extract relevant data from the included studies using a standardized form. (6) Summarize the findings as a report.
Practical7.6	An online review of biological databases and demonstrates steps to retrieve data from these sources.	<p><b>Teachers' Role:</b> (1) Introduce important biological databases (e.g., NCBI, EMBL-EBI, KEGG, UniProt, etc.) and their significance in research. (2) Guide learners in identifying key tools and steps for data assessment, search, and retrieval. (3) Demonstrate the process of accessing and retrieving data from at least one biological database.</p> <p><b>Learners' Role:</b> (1) Identify and list major biological databases relevant to genomics, proteomics, metabolomics, and pharmacogenomics. (2) Prepare a checklist of tools and steps involved in accessing, searching, and retrieving data. (3) Practice database navigation and data retrieval through guided examples. (4) Independently demonstrate data retrieval from a selected database.</p>
<b>Experiential</b>		
<b>S.No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning7.1	Group discussion on the importance and challenges of Translational Research in Ayurveda	<p>Scholars shall identify research institutions and individual researchers actively involved in Ayurveda Translational Research, those bridging classical Ayurvedic knowledge with contemporary scientific frameworks.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> <li>• Mapping experts and institutions: Identify leading institutions (e.g., CCRAS units, IITs, CSIR labs, universities, AYUSH-funded centers) and researchers focusing on translational approaches such as molecular validation, reverse pharmacology, clinical applicability of classical concepts, or integrative medicine.</li> <li>• Expert interaction: Conduct interviews—either direct (in-person/online) or indirect (email/video recordings)—to gain insights</li> </ul>

		<p>into the definition and scope of translational research in Ayurveda, examples of successful translation of Ayurvedic principles into clinical/research models, challenges and limitations faced in translational efforts and opportunities for collaboration and innovation</p> <ul style="list-style-type: none"> <li>• Peer discussion: Organize and moderate a group discussion among fellow scholars based on the collected information. Discuss: How classical concepts are interpreted in modern frameworks, The need for cross-disciplinary partnerships, Gaps between research and real-world application.</li> </ul> <p>Finally, scholars shall compile a report summarizing the expert inputs, peer reflections, and potential strategies to foster translational research capacity in Ayurveda.</p>
<p>Experiential-Learning7.2</p>	<p>Interaction with experts to gain insights, knowledge, and foster collaboration about the applications of Computational Linguistics, and Stylometry in the deep understanding of Sanskrit Ayurveda treatises.</p>	<p>Purpose: To familiarise learners with the applications of Computational Linguistics and Stylometry in the deep understanding of Sanskrit Ayurveda treatises.</p> <p>Teacher's role:</p> <ol style="list-style-type: none"> <li>1. Guide students in identifying and contacting research institutions and experts.</li> <li>2. Facilitate discussions on the insights gathered from expert interactions.</li> <li>3. Help interpret academic or technical responses and relate them to language learning or textual analysis.</li> <li>4. Introduce and demonstrate various digital Sanskrit learning platforms</li> <li>5. Explain the significance of digitizing Ayurvedic texts and preserving classical knowledge.</li> <li>6. Introduce basic concepts of stylometry, corpus linguistics, and computational linguistics.</li> </ol>

		<p>Learners Role:</p> <ol style="list-style-type: none"> <li>1. Research and prepare profiles of institutions and researchers.</li> <li>2. Conduct interviews (email, Zoom, webinars) and document findings.</li> <li>3. Analyze expert insights and connect them to the broader goals of computational linguistics and stylometry.</li> <li>4. Evaluate and reflect on the utility of different tools for language acquisition.</li> </ol> <p>Outcome: Learners will submit a report reflecting the applications of Computational Linguistics and Stylometry in the deep understanding of Sanskrit Ayurveda treatises.</p>
<p>Experiential-Learning7.3</p>	<p>Interaction with experts to gain insights, knowledge, and foster collaboration</p>	<p>Scholars shall identify research institutions and individual researchers working in the field of genomic sciences, especially those exploring Ayurgenomics or integrative approaches that align Ayurveda with modern genetic insights.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> <li>• Identification of experts and institutions: Locate key organizations (e.g., CSIR-IGIB, CCMB, AIIMS, IITs, TDU, NCBS, ICMR centers) and researchers engaged in genomics, with a special focus on those who have explored Prakriti-based genomics, personalized medicine, or ethnogenomics.</li> <li>• Expert interaction: Conduct interviews (in-person, online, or via written correspondence) to explore: The current advancements in genomic research, The potential integration of Ayurvedic principles, such as Prakriti, Dosha, and Agni, with genomic data, How such integration could inform individual health profiling, disease</li> </ul>

		<p>susceptibility prediction, and personalized therapeutic strategies, Challenges in standardizing Ayurvedic parameters for genetic correlation, Possible collaborative models between Ayurveda and genomic research</p> <ul style="list-style-type: none"> <li>• Documentation and analysis: Scholars will compile and analyze the expert inputs to identify common themes, opportunities, and roadblocks in integrative research.</li> <li>• Report and presentation: Prepare a comprehensive report outlining the process, findings, reflections, and future possibilities. The report shall be presented before peers and mentors to initiate broader academic dialogue.</li> </ul>
<p>Experiential-Learning7.4</p>	<p>Interaction with experts to gain insights, knowledge, and fostering collaboration about the applications of metabolomics</p>	<p>Scholars shall identify leading research institutions and experts working in the field of metabolomics, particularly those exploring its applications in medicine, pharmacology, nutrition, and its integration with Ayurveda.</p> <p>Tasks include:</p> <ul style="list-style-type: none"> <li>• Identification of institutions and experts: Locate prominent organizations (such as NII, IISc, CSIR labs like IIIM and IGIB, TDU, IITs, and NIPER) and researchers involved in metabolomics, with a focus on those engaged in health, drug research, and nutrition.</li> <li>• Expert interaction: Conduct interviews using direct (meetings/online sessions) or indirect (emails/questionnaires) methods to gain insights into: The core principles and methodologies used in metabolomics, Current and emerging applications in modern medicine, drug development, and nutrition, How Ayurvedic concepts (like Rasa, Vipaka, Prakriti, and Agni) could correlate with metabolic profiles, Challenges and possibilities in integrating Ayurveda with metabolomic insights, Potential collaborative research areas combining traditional knowledge with modern biochemical analysis</li> </ul>

		<ul style="list-style-type: none"> <li>• Group reflection and analysis: Engage in peer discussions to analyze the collected information, identify patterns or themes, and brainstorm on feasible models of integration.</li> <li>• Documentation and presentation: Prepare a report summarizing expert views, analytical insights, and possible directions for collaborative and translational research. Present the report to the group for further discussion.</li> </ul>
<p>Experiential-Learning7.5</p>	<p>Ascoping review and interaction with experts to identify relationship between the gut microbiome and various health conditions, including metabolic diseases, autoimmune disorders, and mental health through</p>	<p>Scholars will be guided to define a clear research question or objective for a systematic review relevant to Ayurveda, integrative medicine, or a cross-disciplinary theme such as Ayurveda biology, clinical practice, or pharmacology.</p> <p>They will then be required to:</p> <ul style="list-style-type: none"> <li>• Develop a Review Protocol: Define the review objectives and research question. Create a methodology plan, detailing: Inclusion and exclusion criteria (study types, population, interventions, outcomes, language, publication date), Databases and sources to be searched (e.g., PubMed, AYUSH Research Portal, DHARA, Scopus, Google Scholar), Search strategy with defined keywords and Boolean operators, Screening process for titles, abstracts, and full texts, Data extraction plan using a standardized format</li> <li>• Conduct Literature Search and Screening</li> <li>• Perform a comprehensive search of multiple databases</li> <li>• Screen titles and abstracts to identify potentially relevant studies</li> <li>• Retrieve and review full texts to finalize the list of included studies</li> <li>• Data Extraction and Synthesis: Extract key information (e.g., study design, population, interventions, outcomes, results), Tabulate or create a matrix summarizing the findings, identify themes, concepts, common patterns, contradictions, and research gaps</li> </ul>

		<ul style="list-style-type: none"> <li>• Reporting and Validation: Compile a structured report following PRISMA or other applicable guidelines, use visual aids such as flow diagrams, summary tables, charts, and graphs, engage with experts or stakeholders to validate the findings and ensure their relevance in the Ayurvedic or clinical context</li> </ul> <p>The outcome will be a systematic evidence synthesis that informs future research, teaching, or clinical practice. The entire process will be documented by the scholars and may be used as a prototype for future review projects or dissertation modules.</p>
<p>Experiential-Learning7.6</p>	<p>Group discussion to explore the key areas, applications of Systems biology and its possibility of integration with the Ayurveda knowledge system.</p>	<p>The purpose is to introduce scholars to Systems Biology and explore its conceptual and application-level integration with Ayurvedic knowledge systems through literature review, expert interaction, and collaborative discussion.</p> <p>Practical Tasks for Scholars:</p> <p>Literature Exploration: Conduct a preliminary literary review to understand the foundational concepts, key application areas, and methodologies of Systems Biology. Map relevant areas of Ayurveda that align with systems thinking.</p> <p>Expert Interaction: Identify and interact (directly or indirectly) with researchers or institutions working in Systems Biology to understand ongoing work, methodologies, and potential collaborative frameworks with Ayurveda.</p> <p>Discussion Design: In small groups, outline the themes of discussion (e.g., systems-level understanding of doshas, disease networks, personalized medicine), allocate time for each, and assign peer facilitators.</p> <p>Group Discussion and Analysis: Engage in structured discussions sharing insights, experiences, and views on integration possibilities. Focus on interdisciplinary bridges, conceptual common grounds, and methodological challenges.</p> <p>Synthesis and Reporting: Summarize key discussion points, emerging</p>

ideas, areas of consensus or debate, and reflections on feasibility. Submit a collective discussion report to be included in the Practical Record.

**Modular Assessment**

**Assessment method**

**Hour**

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks ( 25 marks per credit). Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

1. Symposium on the importance, key areas and challenges of translational research in Ayurveda(50 marks)

Or

2. Any practical in converted form can be taken for assessment.(25 Marks)

and

3. Any experiential activities, such as portfolio/reflections/presentations, can be taken as an assessment. (25 Marks)

4



**Table 4 : Practical Training Activity**

<b>Practical No</b>	<b>Practical name</b>	<b>Hours</b>
1.1	Healthcare practices of the pre-Vedic and prehistoric period	4
1.2	Nature of Vedic Practices	2
1.3	Evolution of Samhita through contributions of different eminent personalities	4
1.4	Trends in Sangraha kala	3
1.5	Ayurveda and other systems of Medicine	10
1.6	Archeology and Ayurveda	4
1.7	Primary and secondary evidence in Ayurveda	3
2.1	Pratipadika and the word form (with vibhakti) used in text.	1
2.2	Pada/Shabda roopa observed in classical texts and commentaries.	2
2.3	Sarvanama roopa	2
2.4	Identification of vibhakti	2
2.5	Upasarga observed in classical texts and commentaries	3
2.6	Different types of Sandhi in shlokas with explanation of relevant sutras	2
2.7	Chhanda/Vritta explored by Arunadatta in Ashtanga Hridaya	2
2.8	Compilation of synonyms from Kosha grantha	2
2.9	Enact the Samhita patha	2
2.10	Dandanvaya	2
2.11	Identification of Sanskrit Vyakarana by explaining the verses of Brihatrayi	4
2.12	Identification of Sanskrit Vyakarana by explaining Paragraphs of Nibandha Sangraha commentary i	4

2.13	Making the language syntax	2
3.1	Exploration of important manuscript centres and digital sources of Ayurveda manuscripts	10
3.2	Transcription of selected folios of Ayurveda manuscript	10
4.1	Tadvidya Sambhasha (colloquium) in learners engagement	4
4.2	Samhita Teaching-Learning Methods in student engagement	2
4.3	Samhita patha method - demonstration	2
4.4	Identification of Tacheelyadi etc. in Samhitas	4
4.5	Interpretation of Vadamarga	8
5.1	Comparison and classification of Tantrayukti	2
5.2	Use of Tantrayukti in review process	2
5.3	Evaluating Research Projects based on Tantrayukti	2
5.4	Application of Tantraguna in evaluating Quality of Textbooks	2
5.5	Nyaya mentioned in Samhita	6
5.6	Clinical application of Nyaya	3
5.7	Application of Nyaya in Learning Process	3
6.1	Comparison of classical research methods with contemporary research	4
6.2	Research questions based on Katidha purusheeya	3
6.3	Research process mapped with karya abhinirvritti ghataka	3
6.4	Different types of Association in relation to research process	3
6.5	Classical method of drug analysis (Aushadha pariksha paddhati)	3
6.6	Dhatu samya pareeksha	4

7.1	Scoping review to identify the areas of translational research in Ayurveda	4
7.2	Field Visit to a centre using computational linguistic tools for research.	3
7.3	Scoping review on the organization of genomes, different types of genomic variations, mechanisms of gene expression, regulation, and epigenetics	3
7.4	Scoping review of literary sources to provide an overview of the available body of knowledge and key concepts	2
7.5	Scoping review of literary sources to identify diversity of microorganisms in the gut and techniques used to study the gut microbiome.	4
7.6	An online review of biological databases and demonstrates steps to retrieve data from these sources.	4

**Table 5 : Experiential learning Activity**

<b>Experiential learning No</b>	<b>Experiential name</b>	<b>Hours</b>
1.1	Difference between Sastra, Tantra and Vidya	4
1.2	Evolution of Samhita	4
1.3	Ancient Globalization of Ayurveda	2
1.4	Different forms of literature in Ayurveda	3
1.5	Personalities in the Modern Age	3
1.6	Committees for development of Ayurveda	4
1.7	Post independent revival activities	3
1.8	Trends of Globalization	4
1.9	Recent trends in Integrated Approach in Ayurveda and Impact of WHO	3
1.10	Recent Advancements in Research	5
1.11	Advancements in the education sector	4
2.1	Avyaya observed in classical texts and commentaries	3
2.2	Vyutpatti and Nirukti of the words/pratipadika observed in classical texts and commentaries using Kosha	3
2.3	Identification of upapada vibhakti	3
2.4	Identification of Kartari Prayoga or Karmani Prayoga	3
2.5	Dhatu and/or pratyaya in Kriyapada or pada	3
2.6	Identification and explanation of all types of Samasa	3
2.7	Chanting the Verses	2

2.8	Compilation of words with different meanings and its justification	3
2.9	Enacting Samhita patha along with pada patha	3
2.10	Preparation of Khandanvaya	3
2.11	Identification of Sanskrit Vyakarana by explaining the verses of Laghutrayi	3
2.12	Sanskrit Vyakarana Composition of Ayurveda Rasayana and Sarvangasundara commentaries	3
2.13	Translating the classical texts and commentaries	2
2.14	Writing explanatory note in Sanskrit	1
2.15	Short speech in Sanskrit	1
3.1	Collection of descriptive catalogues	10
3.2	Visit to manuscript centre/available resources	10
3.3	Interaction with experts in literary criticism	6
4.1	Development of a lesson plan based on Samhita TL practices	5
4.2	Adhyapanavidhi in relation to reciprocal teaching and case-based learning	5
4.3	Analysis of Tacheelyadi	4
4.4	Identification of Vadamargas	7
4.5	Comparison of classical and contemporary teaching practices	5
5.1	Causes of difference in tantrayukti	2
5.2	Clinical application of tantrayukti	3
5.3	Clinical importance of Tantrayukti	2
5.4	KAP survey among authors on Tantraguna	3
5.5	Identifying Tantradoshas in current literature	6

5.6	Identification of Samhitokta-nyaya	5
5.7	Integration of Nyaya for Diagnosis and treatment	5
6.1	Modeling Sambhasha parishat in research discussions	6
6.2	Developing proforma for Roga-rogee pareeksha paddhati	5
6.3	Analysis of aushadha yogas	5
6.4	Use of Pancha avayava in reporting and discussion	5
6.5	Pancha avayava vakya in discussions	5
7.1	Group discussion on the importance and challenges of Translational Research in Ayurveda	4
7.2	Interaction with experts to gain insights, knowledge, and foster collaboration about the applications of Computational Linguistics, and Stylometry in the deep understanding of Sanskrit Ayurveda treatises.	4
7.3	Interaction with experts to gain insights, knowledge, and foster collaboration	4
7.4	Interaction with experts to gain insights, knowledge, and fostering collaboration about the applications of metabolomics	4
7.5	Ascopying review and interaction with experts to identify relationship between the gut microbiome and various health conditions, including metabolic diseases, autoimmune disorders, and mental health through	5
7.6	Group discussion to explore the key areas, applications of Systems biology and its possibility of integration with the Ayurveda knowledge system.	5

**Table 6 : Assessment Summary: Assessment is subdivided in A to H points****6 A : Number of Papers and Marks Distribution**

Subject Code	Paper	Theory	Practical	Total
AYPG-AB-SS	1	100	200	300

**6 B : Scheme of Assessment ( Formative and Summative Assessment)****Credit frame work**

AYPG-AB-SS consists of 7 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 Hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

**Formative Assessment :**Module wise Assessment:will be done at the end of each module. Evaluation includes learners active participation to get Credits and Marks. Each Module may contain one or more credits.

**Summative Assessment:**Summative Assessment (University examination) will be carried out at the end of Semester II.

**6 C : Calculation Method for Modular Grade Points (MGP)**

Module Number & Name (a)	Credits (b)	Actual No. of Notional Learning Hours (c)	Attended Number of notional Learning hours (d)	Maximum Marks of assessment of modules (e)	Obtained Marks per module (f)	MGP =d*f/c*e*100
M1. Evolution of Ayurveda: From early stages to contemporary	3	90		75		
M2. Applied Sanskrit	3	90		75		
M3. Manuscriptology & Textual Criticism	2	60		50		
M4. Classical methods of Teaching and Learning	2	60		50		
M5. Classical methods of interpretation of Samhita	2	60		50		
M6. Samhita Oriented Research	2	60		50		
M7. Translational Ayurveda	2	60		50		
MGP = ((Number of Notional learning hours attended in a module) X (Marks obtained in the modular assessment ) / (Total number of Notional learning hours in the module) X (Maximum marks of the module)) X 100						

## 6 D : Semester Evaluation Methods for Semester Grade point Average (SGPA)

SGPA will be calculated at the end of the semester as an average of all Module MGPs. Average of MGPs of the Semester For becoming eligible for Summative assessment of the semester, student should get minimum of 60% of SGPA

**SGPA = Average of MGP of all modules of all papers = add all MGPs in the semester/ no. of modules in the semester** Evaluation Methods for Modular Assessment

A S.No	B Module number and Name	C MGP
1	M1.Evolution of Ayurveda: From early stages to contemporary	C 1
2	M2.Applied Sanskrit	C 2
3	M3.Manuscriptology & Textual Criticism	C 3
4	M4.Classical methods of Teaching and Learning	C 4
5	M5.Classical methods of interpretation of Samhita	C 5
6	M6.Samhita Oriented Research	C 6
7	M7.Translational Ayurveda	C 7
	Semester Grade point Average (SGPA)	$(C1+C2+C3+C4+C5+C6+C7) / \text{Number of modules}(7)$

S. No	Evaluation Methods
1.	Method explained in the Assessment of the module or similar to the objectives of the module.



**6 E : Question Paper Pattern****MD/MS Ayurveda Examination  
AYPG-AB-SS  
Sem II****Time: 3 Hours ,Maximum Marks: 100**  
INSTRUCTIONS: All questions compulsory

		Number of Questions	Marks per question	Total Marks
Q 1	Application-based Questions (ABQ)	1	20	20
Q 2	Short answer questions (SAQ)	8	5	40
Q 3	Analytical based structured Long answer question (LAQ)	4	10	40
				100

**6 F : Distribution for summative assessment (University examination)**

S.No	List of Module/Unit	ABQ	SAQ	LAQ
<b>(M- 1) Evolution of Ayurveda: From early stages to contemporary (Marks: Range 5-20)</b>				
1	<b>(U-1)</b> Stages of development of Ayurveda	Yes	Yes	Yes
2	<b>(U-2)</b> Early stage of development of Ayurveda	Yes	Yes	Yes
3	<b>(U-3)</b> Evolution of Ayurveda during Samhita-kala (Prachina kala)	Yes	Yes	Yes
4	<b>(U-4)</b> Status of Ayurveda during Sangraha-kala (Madhya kala)	Yes	Yes	Yes
5	<b>(U-5)</b> Status of Ayurveda during Modern age (Adhunika kala)	Yes	Yes	Yes
6	<b>(U-6)</b> Ayurveda and other systems of medicine	Yes	Yes	Yes
7	<b>(U-7)</b> Archeological evidences of Ayurveda	Yes	Yes	Yes
<b>(M- 2) Applied Sanskrit (Marks: Range 5-10)</b>				
1	<b>(U-1)</b> Applied Sanskrit 1	No	Yes	No
2	<b>(U-2)</b> Applied Sanskrit 2	No	Yes	No
3	<b>(U-3)</b> Applied Sanskrit 3	No	Yes	No
4	<b>(U-4)</b> Applied Sanskrit 4	No	Yes	No
5	<b>(U-5)</b> Applied Sanskrit 5	No	Yes	No
6	<b>(U-6)</b> Applied Sanskrit 6	No	Yes	No
7	<b>(U-7)</b> Applied Sanskrit 7	No	Yes	No
8	<b>(U-8)</b> Applied Sanskrit 8	No	Yes	No

9	<b>(U-9)</b> Applied Sanskrit 9	No	Yes	No
10	<b>(U-10)</b> Applied Sanskrit 10	No	Yes	No
11	<b>(U-11)</b> Applied Sanskrit 11	No	Yes	No
12	<b>(U-12)</b> Applied Sanskrit 12	No	Yes	No
<b>(M- 3)</b> Manuscriptology & Textual Criticism (Marks: Range 5-15)				
1	<b>(U-1)</b> Introduction to Manuscriptology	No	Yes	Yes
2	<b>(U-2)</b> Primary steps in manuscriptology	No	Yes	Yes
3	<b>(U-3)</b> Steps in editing manuscripts	No	Yes	Yes
4	<b>(U-4)</b> Textual criticism	No	Yes	Yes
<b>(M- 4)</b> Classical methods of Teaching and Learning (Marks: Range 5-20)				
1	<b>(U-1)</b> Teaching and Learning methodology available in Samhita	Yes	Yes	Yes
2	<b>(U-2)</b> Classical teaching	Yes	Yes	Yes
3	<b>(U-3)</b> Techniques of interpretation	Yes	Yes	Yes
4	<b>(U-4)</b> Debate and its terms (Vada & Vadamarga)	Yes	Yes	Yes
5	<b>(U-5)</b> Comparison of Teaching Learning Practices in Samhita -with contemporary methods	Yes	Yes	Yes
<b>(M- 5)</b> Classical methods of interpretation of Samhita (Marks: Range 5-20)				
1	<b>(U-1)</b> Tantrayukti - basic description	Yes	Yes	Yes
2	<b>(U-2)</b> Application of Tantrayukti - 1	Yes	Yes	Yes
3	<b>(U-3)</b> Application of Tantrayukti - 2	Yes	Yes	Yes
4	<b>(U-4)</b> Tantraguna	Yes	Yes	Yes
5	<b>(U-5)</b> Introduction to Tantradosha	Yes	Yes	Yes
6	<b>(U-6)</b> Exploration of Nyaya	Yes	Yes	Yes
7	<b>(U-7)</b> Application of Nyaya	Yes	Yes	Yes
<b>(M- 6)</b> Samhita Oriented Research (Marks: Range 5-20)				
1	<b>(U-1)</b> Jijnasa : The path of Inquisitiveness	Yes	Yes	Yes
2	<b>(U-2)</b> Prayogam : The methodologies of research execution based on Samhita	Yes	Yes	Yes
3	<b>(U-3)</b> Prayojanam : The methods of evaluation / Samhita based outcome evaluation	Yes	Yes	Yes
4	<b>(U-4)</b> Verbal & Documentary communication of Research outcome based on Samhita	Yes	Yes	Yes
<b>(M- 7)</b> Translational Ayurveda (Marks: Range 5)				

1	<b>(U-1)</b> Fundamentals of research in Ayurveda	No	Yes	No
2	<b>(U-2)</b> Literary Research	No	Yes	No
3	<b>(U-3)</b> Genomic Sciences	No	Yes	No
4	<b>(U-4)</b> Metabolomics	No	Yes	No
5	<b>(U-5)</b> Human Gut Microbiome	No	Yes	No
6	<b>(U-6)</b> Bioinformatics	No	Yes	No

## **6 G : Instruction for the paper setting & Blue Print for Summative assessment (University Examination)**

### **Instructions for the paper setting.**

1. 100 marks question paper shall contain:-
  - Application Based Question: 1 No (carries 20 marks)
  - Short Answer Questions: 8 Nos (each question carries 05 marks)
  - Long Answer Questions: 4 Nos (each question carries 10 marks)
2. Questions should be drawn based on the table 6F.
3. Marks assigned for the module in 6F should be considered as the maximum marks. No question shall be asked beyond the maximum marks.
4. Refer table 6F before setting the questions. Questions should not be framed on the particular unit if indicated "NO".
5. There will be a single application-based question (ABQ) worth 20 marks. No other questions should be asked from the same module where the ABQ is framed.
6. Except the module on which ABQ is framed, at least one Short Answer Question should be framed from each module.
7. Long Answer Question should be analytical based structured questions assessing the higher cognitive ability.
8. Use the Blueprint provided in 6G or similar Blueprint created based on instructions 1 to 7

## 6 H : Distribution of Practical Exam (University Examination)

S.No	Heads	Marks
1	Long Practical (1) Descriptive cataloging of given manuscript or Transcription of given folios Or conduct of model class following Adhyayana vidhi or sambhasha vidhi (20 marks) (2) Identification of Tantrayukti or Tantraguna or Tantradosha of given material (20 marks) (3) Conduct of Aushadhapareeksha of given drug or Roga-rogeepareeksha (case taking) in given patient as per Ayurvedic guidelines (40 marks)	80
2	Short practical (1) Anwaya of three given Shlokas from Samhitas (18 marks) (2) Meaning of three given sholkas/verses (18 marks) (3) Commentary / critical analysis of two given Sutras (24 marks)	60
3	Viva	40
4	Log Book	10
5	Practical Record	10
<b>Total Marks</b>		<b>200</b>

## Reference Books/ Resources



08\_Samhita

[Click here to access References and Resources](#)

## Abbreviations

Domain		T L Method		Level	
CK	Cognitive/Knowledge	L	Lecture	K	Know
CC	Cognitive/Comprehension	L&PPT	Lecture with PowerPoint presentation	KH	Knows how
CAP	Cognitive/Application	L&GD	Lecture & Group Discussion	SH	Shows how
CAN	Cognitive/Analysis	L_VC	Lecture with Video clips	D	Does
CS	Cognitive/Synthesis	REC	Recitation		
CE	Cognitive/Evaluation	SY	Symposium		
PSY-SET	Psychomotor/Set	TUT	Tutorial		
PSY-GUD	Psychomotor/Guided response	DIS	Discussions		
PSY-MEC	Psychomotor/Mechanism	BS	Brainstorming		
PSY-ADT	Psychomotor Adaptation	IBL	Inquiry-Based Learning		
PSY-ORG	Psychomotor/Origination	PBL	Problem-Based Learning		
AFT-REC	Affective/ Receiving	CBL	Case-Based Learning		
AFT-RES	Affective/Responding	PrBL	Project-Based Learning		
AFT-VAL	Affective/Valuing	TBL	Team-Based Learning		
AFT-SET	Affective/Organization	TPW	Team Project Work		
AFT-CHR	Affective/ characterization	FC	Flipped Classroom		
		BL	Blended Learning		
		EDU	Edutainment		
		ML	Mobile Learning		
		ECE	Early Clinical Exposure		

		SIM	Simulation		
		RP	Role Plays		
		SDL	Self-directed learning		
		PSM	Problem-Solving Method		
		KL	Kinaesthetic Learning		
		W	Workshops		
		GBL	Game-Based Learning		
		LS	Library Session		
		PL	Peer Learning		
		RLE	Real-Life Experience		
		PER	Presentations		
		D-M	Demonstration on Model		
		PT	Practical		
		X-Ray	X-ray Identification		
		CD	Case Diagnosis		
		LRI	Lab Report Interpretation		
		DA	Drug Analysis		
		D	Demonstration		
		D-BED	Demonstration Bedside		
		DL	Demonstration Lab		
		DG	Demonstration Garden		
		FV	Field Visit		
		JC	Journal Club		
		Mnt	Mentoring		
		PAL	Peer Assisted Learning		
		C_L	Co Learning		



		DSN	Dissection		
		PSN	Prosection		

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18.	Dr Kartar Singh Dhiman, Vice Chancellor, Shri Krishna Ayush University, Umri Road, Sector 8, Kurukshetra, Haryana
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20.	Prof. Rabinarayan Acharya, Director General, Central Council for Research in Ayurvedic Sciences (CCRAS), New Delhi 58
21.	Dr Pradeep Kumar Prajapati, Vice Chancellor, Dr Sarvepalli Radhakrishnan Rajasthan Ayurved University, Jodhpur.
22.	Prof. Tanuja Manoj Nesari, Director, ITRA, Jamnagar
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30.	Dr. Raman Mohan Singh, Director, Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H), Ghaziabad.
31.	Prof. B.J. Patgiri, Director Incharge, Institute of Teaching and Research in Ayurveda
32.	Dr. Ahalya S, Vice Chancellor, Karnataka Samskrit University
33.	Dr. Vandana Siroha, Director Rashtriya Ayurveda Vidyapeeth (National Academy of Ayurveda) New Delhi 26
34.	Dr. Sangeeta Kohli, Professor, Department of Mechanical Engineering, Indian Institute of Technology, Delhi,
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<b>International Experts</b>	
36.	Dr. Geetha Krishnan, Unit Head, Evidence and Learning, WHO Global Treatment Center, Jamnagar
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38.	Dr. Pradeep Dua, Technical Officer at the World Health Organization s (WHO) headquarters in Geneva,
39.	Dr Shantala Priyadarshini, Ayurveda Chair, University of Latvia, LATVIA
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41.	Dr Venkata Narayan Joshi, Director, Association Ayurveda Academy UK.
42.	Dr. Suresh Swarnapuri, Director of Association Europe Ayurveda Academy, NIMES France
43.	Dr Prathima Nagesh, Director, Gurukula (United Kingdom),
44.	Prof. Dr. Asmita Wele, Former Ayurveda Chair, University of Debrecen, Hungary
45.	Dr. Shekhar Annambotla, Practitioner, USA,
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46.	Dr Mohan Joshi, Associate Dean, Professor, Samhita Siddhant and Sanskrit Dept. All India Institute of Ayurveda, Goa.
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8.	Dr. Pradeep S. Shindhe, Professor and HoD department of Shalyatantra, KAHER S Sri BMK Ayurveda Mahavidyalaya, Shahapur, Belagavi
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