KMCT
AYURVEDA MEDICAL COLLEGE

OUTCOME BASED EDUCATION(OBE)

MANUAL

Prepared by

Internal Quality Assurance Cell (IQAC)

KMCT
AYURVEDA MEDICAL COLLEGE
Approved by CCIM and Affiliated to Kerala University of Health Sciences.

OUTCOME BASED EDUCTION (OBE)

MANUAL

Prepared by

IQAC AND CURRICULUM COMMITTE

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VISION
To be an institution of excellence in Ayurvedic education, research and healthcare
MISSION
❖To provide high quality, holistic education in Ayurveda, incorporating traditional Ayurvedic wisdom along with contemporary scientific advancements
❖To develop an aptitude for research focused primarily on the needs of the patient as well as ease of operations of an Ayurvedic physician
❖To promote holistic wellbeing of a patient through individualized treatment plan focused on his/her current physical, mental and social wellbeing.
❖To inculcate a deep sense of social responsibility in each student by engaging them in extension activities aimed at awareness and containment of communicable diseases and conditions among the less privileged in the society

GRADUATE ATTRIBUTES

The following are the defined quality indicators and competencies for the graduates from the KMCT Ayurveda Medical College.

- Knowledge and skills
- Planning and problem-solving abilities
- Professionalism and leader ship
- Communication skills and team work
- Environment and sustainability
- Response to ethics in life and social issues
- Efficient project management and finance
- Self-awareness and emotional intelligence
- Motivation for lifelong learning
- Digital capabilities

PROGRAMME OUTCOME(PO)

At the end of the BAMS programme, the students will be able to:

PO1-Acknowledge the significance of ayurvedic principles in relation to community health issues.

PO2-To raise awareness about Ayurveda's uniqueness

PO3-To possess proficiency in diagnosing abilities, Identifying mineral and herbal medications

PO4-To expertise in manufacturing knowledge for various formulations.

PO5- Demonstrate responsiveness, ethical behavior, and compassion to improve the happiness of individuals and the community.

PO6-To be skillful in providing patient care and in using specific treatment methods

PO7-Demonstrate how you can communicate with patients, families, the community, and peers in a successful way.

PO8-Demonstrate how you understand the traits and abilities needed to be a practitioner, researcher, or academician, or that you aspire to be one.

PROGRAMME SPECIFIC OUTCOME(PSO)

PSO 1 Understanding:

Graduates of Ayurveda will be able to explain and evaluate Trisutra, which consists of the three Ayurvedic realms of Hetu, Linga, and Chikitsa.

PSO 2 Executive skill:

Graduates of Ayurvedic medicine will be able to plan, carry out, manage, maintain, and restore positive health. They will also be able to communicate with patients, families, colleagues, and the community in an efficient manner.

PSO 3 Accountability - Clinical effectiveness and implementation:

Ayurvedic graduates will be knowledgeable about modern advancements in Ayurvedic medicine. Aspirants to Ayurveda must work in hospitals, in health care administration, and in health monitoring. Graduates in Ayurveda will possess the necessary knowledge of how national health projects and procedures affect the world economy and society

PROGRAMME EDUCATIONAL OBJECTIVE(PE0s)

PEO 1- Acquire a thorough understanding of all Ayurvedic principles both academically **and** practically in order to effectively become Ayurvedic practitioners and manage them own clinics.

PEO2- Understand thoroughly how yoga, meditation, metals, minerals, and plants are useful in helping manage even long-term, chronic diseases.

PEO3- Become expert trainers who can instruct and train students in Ayurvedic research and study, which will help them in their future academic achievements.

INTRODUCTION

Outcome Based Education (OBE) is an educational model that forms the base of a quality education system. There is no single specified style of teaching or assessment in OBE. All educational activities carried out in OBE should help the students to achieve the set goals. The faculty may adapt the role of instructor, trainer, facilitator, and/or mentor, based on the outcomes targeted.

OBE enhances the traditional methods and focuses on what the Institute provides to students. It shows the success by making or demonstrating outcomes using statements "able to do" in favor of students. OBE provides clear standards for observable and measurable outcomes.

The University Grants Commission (UGC) has introduced a Learning Outcomes-based Curriculum Framework for Undergraduate Education in India. The framework is based on the premise that higher education qualifications such as Bachelor's Degree programmes are awarded on the basis of demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes, and values) and academic standards expected of graduates of a programme of study.

The National Education Policy (NEP) 2023 has also emphasized the importance of outcome-based education in India. A strong focus on outcome-based education is crucial to achieving the goal of elevating the quality of education in India to global standards.

BENEFITS OF OBE

Clarity

The focus on outcome creates a clear expectation of what needs to be accomplished by the · end of thecourse.

Flexibility

With a clear sense of what needs to be accomplished, instructors will be able to structure their lessons around the students' needs.

Comparison

OBE can be compared across the individual, class, batch, programme and institute levels.

Involvement

Students are expected to do their own learning. Increased student involvement allows them to feel responsible for their own learning, and they should learn more through this individual learning.

Higher Education Quality

OBE delivers a higher quality of education since it focuses on learning outcomes and guarantees that students master the subject matter. This technique assists students in developing critical thinking abilities, problem-solving skills, and practical skills that are useful in the workplace.

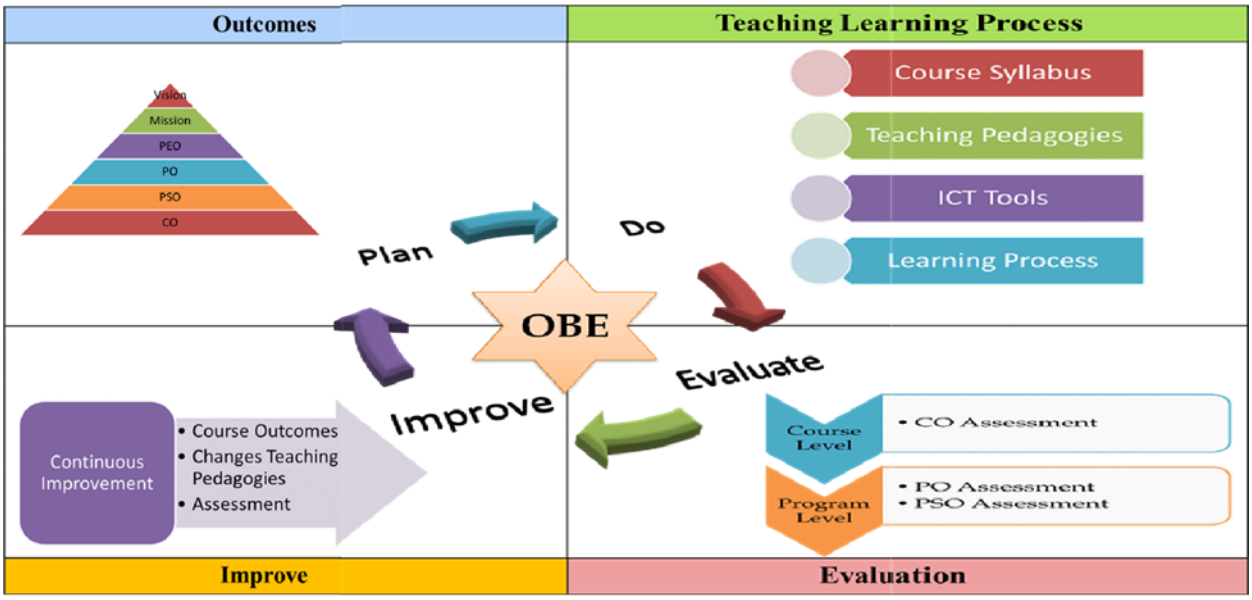
Self-Directed Learning

OBE promotes self-directed learning, in which students are in charge of their own education and growth. In their future employment,

students will benefit from having a sense of freedom and autonomy, which is fostered by this method.

Better Career Opportunities

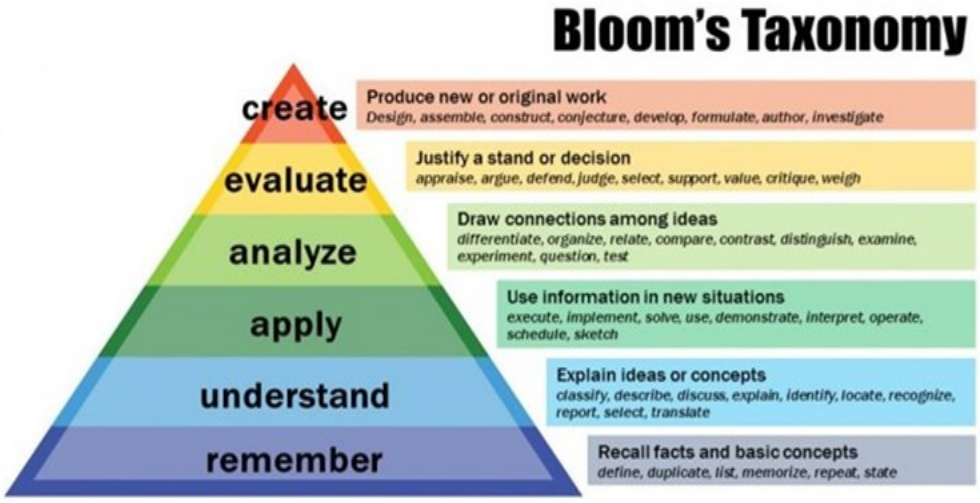
OBE aids students in acquiring the knowledge and skills that employers value. This can increase their employment possibilities and assist them in achieving their career objectives.



Bloom's Taxonomy: A Framework for Learning Objectives

Bloom's Taxonomy, originally published in 1956, is a hierarchical framework that categorizes educational learning objectives into six levels of cognitive complexity. These levels range from lower-order thinking skills like remembering and understanding to higher-order thinking skills like analyzing, evaluating, and creating. Here's an overview of the six levels:

Level	Descriptor	Level of attainment
1	Remembering	Recalling from the memory of the previously learned material
2	Understanding	Explaining ideas or concepts
3	Applying	Using the information in another familiar situation
4	Analysing	Breaking information into the part to explore understandings and relationships
5	Evaluating	Justifying a decision or course of action
6	Creating	Generating new ideas, products or new ways of viewing things



Revised Bloom's Taxonomy:

In 2001, a revised version of Bloom's Taxonomy was published, focusing on action verbs and gerunds rather than nouns. This revision emphasizes deeper and more active learning experiences.

he Revised Bloom's Taxonomy, published in 2001, offers an

updated framework for classifying educational learning objectives. It builds upon the original 1956 version by shifting the focus from nouns to action verbs and gerunds, thereby emphasizing active learning and cognitive processes.

Here's a breakdown of the Revised Bloom's Taxonomy and its six levels:

1. **Remembering (Knowing & Recalling):**

Key words: Recognizing, recalling, retrieving, listing, defining, describingFocus: Retrieving and recalling factual information.

2. **Understanding (Comprehending & Interpreting):**

Key words: Interpreting, explaining, summarizing, paraphrasing, classifying, comparing, contrasting Focus: Grasping the meaning and implications of information, making connections.

3. **Applying (Using & Implementing):**

Key words: Executing, demonstrating, implementing, calculating, illustrating, solving

Focus: Applying knowledge and skills in new situations, solving problems with known procedures.

4. **Analyzing (Breaking Down & Examining):**

Key words: Differentiating, organizing, attributing, analyzing, investigating, experimenting

Focus: Breaking down information into parts, examining relationships, drawing connections.

5.**Evaluating (Judging & Critiquing):**

Key words: Checking, critiquing, judging, assessing, recommending, valuing

Focus: Making judgments based on criteria, evaluating quality and effectiveness.

6.Creating (Generating & Designing):

Key words: Generating, hypothesizing, planning, designing, constructing, composing

Focus: Producing new ideas or products, designing solutions, contributing original work.

Applications of Bloom's Taxonomy:
Bloom's Taxonomy can be used for various educational purposes, including:

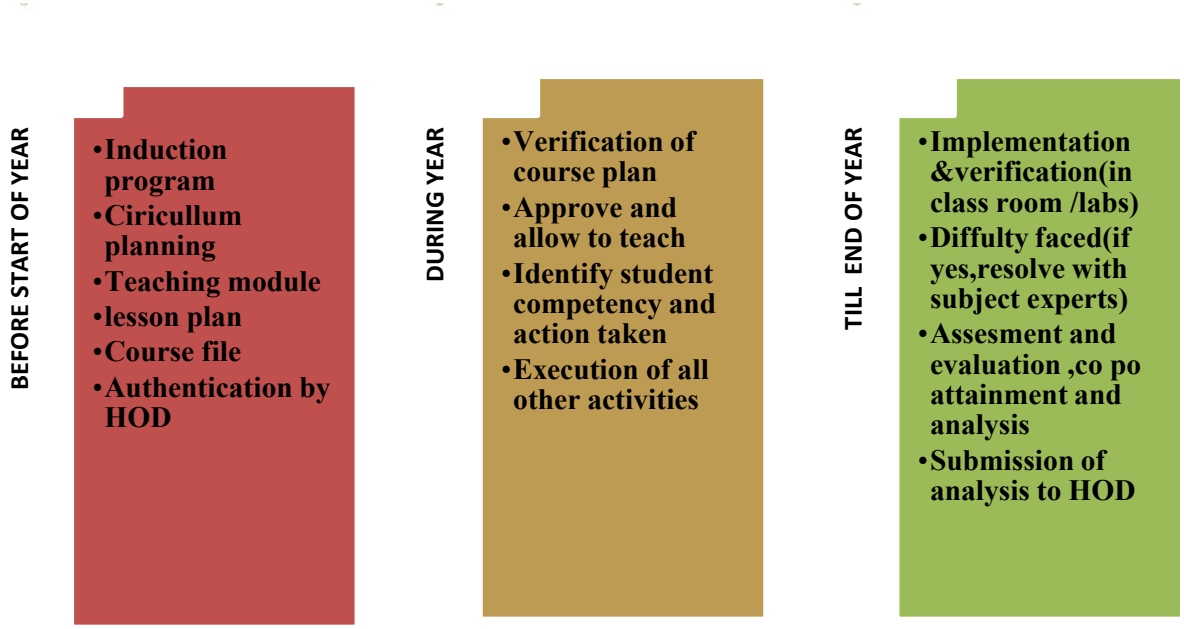
Designing learning objectives: Clearly define what students should be able to do at the end of a lesson, unit, or course.

Creating assessments: Align assessments with the desired learning objectives and the appropriate level of Bloom's Taxonomy.

Planning instruction: Design activities and experiences that help students achieve the learning objectives at different levels.

Providing feedback: Offer feedback that helps students move towards mastery of the intended learning objectives.

OBE FRAME WORK OF INSITUITION



INDUCTION PROGRAM:

The college conducts an Induction Program every year to welcome the new admission batch. Each year this program is organized as per the university recommended date to start the new batch. The students along with their parents gets oriented towards the entire BAMS program executed by the college.

CURRICULUM DEVELOPMENT:

Faculty member reviews programme learning outcomes, course descriptions, and relevant frameworks.

Develops a comprehensive curriculum document outlining

the scope, sequence, and organization of the subject's content.

The curriculum aligns with learning outcomes, assessment strategies, and instructional methods.

LESSON PLAN CREATION:

For each unit or topic within the curriculum, faculty member creates detailed lesson plans. Each lesson plan specifies:
Learning objectives.
Instructional activities (e.g., lectures, discussions, group work, assignments).
Assessment methods (e.g., quizzes, projects, presentations
Required resources (e.g., textbooks, articles, technology). Estimated time allocation.

COURSE FILE PREPARATION:

Faculty member compiles all relevant materials and documentation into a comprehensive course file.

The course file typically includes:

- Syllabus
- Module
- Lesson plan
- Time table
- Question bank
- Internal question paper
- University question paper
- Attendance
- Internal marks
- Slow learners and advance learners list

- Strategies to enhance performance of slow learners and advance learners
- Details of test papers conducted
- Answer sheets
- Assessment instruments (e.g., rubrics, quizzes, exams).
- Teaching handouts, slides, or other instructional materials.
- CO of department
- CO-po mapping
- CO -PO attainment
- Department calendar
- Mentor-mentee list

Submission and Review: Faculty member submits the completed curriculum, lesson plans, and course file to the Department Chair by the designated deadline.

The Department head reviews the materials for completeness, quality, and adherence to programme guidelines. Feedback and suggestions for improvement are provided to the faculty member, if necessary.

Approval and Recordkeeping:

Once approved, the Department Chair signs off on the finalized materials. The Department maintains records of all submitted curriculum, lesson plans, and course files.

STUDENT COMPETENCIES

Specific competencies of students will be assessed

Academic skills: Standardized tests, classroom assessments

Practical skills: Performance-based assessments, simulations, project work, observations.

Base Score for student category

<50% -Slow Learner
50% to 65% - Average Learner
>65%-Advanced Learner

STRATEGIES FOR CATERING TO DIVERSE LEARNING NEEDS: SLOW,AVERAGE, AND ADVANCED LEARNERS

Educators strive to create inclusive learning environments that cater to the individual needs of all students, regardless of their learning pace or abilities.

SLOW LEARNERS:

- Mentor-mentee programme
- Remedial teaching
- Discussion on previous question papers
- Notes uploading in moodle
- Individual attention to solve problems
- Peer teaching

ADVANCED LEARNERS:

- Attending seminars
- Work shops

- Paper and poster presentations
- Journal presentations award for toppers in academics
- Participation in short term courses
- Participation in quiz competitions

DESIGNING OF QUESTION PAPER

A good and reasonable examination paper must consist of various difficulty levels to accommodate the different capabilities of students. Bloom's taxonomy framework helps the faculty to set examination papers that are well balanced, testing the different cognitive skills without a tilt towards a tough or easy paper perception.

Designing Question Papers based on Bloom's Taxonomy and Course Outcomes (COs)

Step-by-step procedure for designing question papers aligned with Bloom's Taxonomy and course outcomes (COs):

1. **Define Course Outcomes (COs):**

Clearly articulate the key knowledge, skills, and abilities your students should acquire by the end of the course. Ensure COs are measurable and specific, using action verbs like "analyze," "create," or "evaluate."

2. **Map COs to Bloom's Taxonomy:**

Analyze each CO and identify the corresponding level of Bloom's Taxonomy (Remembering, Understanding,

Applying, Analyzing, Evaluating, Creating). Map each CO to several learning objectives within the chosen Bloom's level to ensure comprehensive assessment.

3.Develop Questions:

For each mapped objective, craft questions that directly assess their specified skills and knowledge. Use clear and concise language with appropriate vocabulary and difficulty level for the target audience. Utilize diverse question formats (e.g., multiple choice, open-ended, short answer, problem-solving) to address different learning styles and assessment needs.

4.Ensure Coverage and Distribution:

Allocate questions based on the importance and complexity of each CO. Aim for balanced representation across all Bloom's levels to test a variety of cognitive skills. Consider including bonus questions for advanced learners at higher Bloom's levels (optional). Conduct a pilot test with a small group of students to gauge difficulty level and identify any potential issues. A suggestive list of skills/ competencies to be demonstrated at each of the Bloom's level and corresponding cues/ verbs for the examination/ test questions are given below: -

CO-PO MAPPING GUIDELINES

The attainment of POs and COs are evaluated by direct and indirect attainment methods.

Level of attainment

The three levels of attainment are taken as 1- low; 2- medium;3- high and it can be defined as

Attainment 3: 70% of students score more than 50% marks

Attainment 2: 60% of students score more than 50% marks

Attainment1: 50%of students score more than50% marks

Direct attainment

The direct attainment is done by evaluating student performance in Continuous Internal Assessment (CIA) which comprises of sessional examinations and academic activities (assignments, seminars, class tests and quizzes) and End semester/ year examinations (EE). The proportional weightages of CIA: EE are 20:80.

Direct attainment of a specific COs is determined from the performances of students to all the assessment items related to that particular CO. Hence, every assessment item needs to be tagged with the relevant CO. Continuous Internal Assessment is conducted and evaluated by college and End Semester Examination is conducted and evaluated by the University. The average marks scored in End semester/year examination will be considered as the common attainment of all Cos

Direct Course Outcome Attainment = 20% of Continuous Internal Assessment (CIA) +80% of End Semester/year examination attainment.

Indirect attainment

Indirect attainment of COs can be determined from the course end survey.

Attainment of CO = (Level-1 X No of Students Attempted) + (Level-2 X No of Students Attempted) + (Level-3 X No of Students Attempted)/Total No of Students (Level 1: Low; Level 2: Medium; Level 3: High)

Overall Course Outcome Attainment

Overall Course Outcome Attainment = 90% Direct Course Outcome Attainment + 10% Of Indirect Attainment

PO ATTAINMENT

PO assessment tools are categorized into Direct method and Indirect method. The final PO attainment is calculated by taking 80% of the attainment values from Direct assessment method and 20% of the attainment values from Indirect assessment method.

Direct Method:

Once the overall attainment percentage of each COs is calculated, the PO attainment is calculated by taking the cumulative average of all the course's CO attainment which contributes to the Program Outcomes.

Indirect Method:

This assessment approach is intended to find out about the quality of the learning process by getting feedback from exit surveys.

The obtained values will be compared with the set attainment target fixed for each PO.

- If the target is achieved, then the same process will be continued for further batches.
- If the target is not achieved, then continuous improvement action will be taken for each PO. Based on the attainment, the improvements to be done are discussed among the staff.

COURSE OUTCOMES & CO-PO MAPPING

RACHANA SHAREERA

THEORY- TWO PAPERS-200 MARKS– (100 MARKS EACH) PRACTICAL-100 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Describe the fundamentals of Rachana sharir, interpret and analyze it in relevant contextand its significance in Ayurveda
CO2	Explain Garbha sharir and Embryology in Ayurveda and modern science respectively withclinical significance
CO3	Describe and demonstrate all the bones and joints with attachments Explain the concept of sira Dhamini srotas,the organization in the human body and its applied aspect of associatedstructure and its clinical application.
CO4	Explain and demonstrate the gross anatomy of organs of various system and their applied anatomy in perspective of ayurveda and modern science. Respect the cadaver and performdissection with commitment to reiterate the theoretical aspect of Ayurveda Rachana sharirandcontemporary science.
CO5	Identify the marmas and understand its classification along with its importance in preventive and therapeutic aspect. Identify and locate and the structures of body and mark the topography and living sharira. Describe the basic principle of imaging technologies and identify the anatomical structures in the radio graph.
CO6	Explain the indriya sharir and sensory organ with its application in preventive and therapeutic domain. Uttamamgia sharira with nadis ida,pingala,sushumna and shadchakras.

CO - PO MAPPING

RACHANA SHAREERA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3						
CO2	3	2						2
CO3	2	2		2				
CO4	2	2	2					
CO5	3	2						
CO6	3	2	2					
AVERAGE	2.7	2.16	2	2				2

KRIYA SHARIRA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH) PRACTICAL-100MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	To know the basic understanding of principles of Kriyasarira
CO2	To know normal and abnormal variables pertaining to Kriyasarira such as sara,agni,koshta, srothas
CO3	To know how each organ system functions and works together for the body tofunction properly.
CO4	To know the basic laboratory tests and clinical examination of different systems
CO5	Application of the principles of Sharira kriya in the field of research

CO - PO MAPPING

KRIYA SHAREERA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3					
CO2	2	3	2					
CO3	3	3	3	2		2	2	
CO4	3	2	3			2		
CO5	2	2	2	2	2	2	2	
AVERAGE	2.6	2.6	2.6	2	2	2	2	

SANSKRIT

THEORY -ONE PAPER-100 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Read and recite prose and poem with the appropriate accent
CO2	Apply various technical terms in Ayurveda,Nouns and Pronouns,Verbs, Suffixes,Grammatical Terms,Syntax and compounds from Sanskrit Grammar for enhanced interpretation of Ayurveda texts
CO3	Discriminate and interpret the cases and meanings used in various verses of Ayurveda texts

CO4	Formulate the prose order of Slokas/Sutra in Ayurveda Textbooks to derive the meaning, to determine the Scientific Meaning and to Translate (Regional or other language)
CO5	Interpret the Synonyms and Derivations of Ayurveda Terms using samskrita dictionaries

CO - PO MAPPING

SANSKRIT								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2	2				
CO2	3	3	2	2	2			
CO3	2	3	2	2	2			
CO4	3	2	2	2	2			
CO5	2	2	3	2	2			
AVERAGE	2.6	2.4	2.2	2	2			

MOULIKA SIDDHANTA EVAM ASHTANGA HRIDAYA

THEORY -ONE PAPER-100 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Distinguish the different *Samhitas*, their importance and methodology and familiarize with the tools of *Samhita*

	Adhyayan. (eg: *tantrayukti*)
CO2	Interpret and apply the *sutras* from the *Samhitas*.
CO3	Apply and evaluate the *Tridosha*, *Saptadhatu* and *Mala* principles (theory).
CO4	Practice and prescribe *Dincharya* (daily regimen), *Ritucharya* (seasonal regimen) and dietary principles for preservation of health.
CO5	Explore and distinguish different types of food, food groups and medicinal *dravyas* mentioned in *Samhitas*.
CO6	Identify various etiopathological factors and predict different treatment principles. Recognize and explain the fundamentals behind various therapeutics (*Shodhan* and allied) and parasurgical therapies.

CO - PO MAPPING

MOULIKA SIDDHANTA EVAM ASHTANGA HYRIDYA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	3	2		2	2	2	3
CO2	3	3	2		3	2	2	2
CO3	3	3	3	2	3	3	3	3
CO4	3	3	2		3	2	2	3
CO5	3	3	3	2	3	3	2	3
CO6	3	3	3	2	3	3	3	3
AVERAGE	2.8	3	2.5	2	2.8	2.5	2.3	2.8

PADARTHA VIJNANA

THEORY -ONE PAPER-100 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO 1	Illustrate the scope and utility of Ayurveda along with its history
CO 2	Explain Philosophical foundation of Ayurveda, Principles (Siddhantha) of Darshana alongwith their similarities and relevance in Ayurveda and contemporary sciences.
CO 3	Analyze and interpret Padartha (Prameya) in Darshana and Ayurveda. Recognize theirapplications in Ayurveda.
CO 4	Distinguish, analyses and apply concept of Pramana shastra (Epistemology) in Darshanaand Ayurveda. Demonstrate their applications in Ayurveda.
CO 5	Analyze and apply concept of Karya Karana Bhava in Ayurveda.

CO - PO MAPPING

PADARTHAVIJANA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3		2		3	2	2	2
CO2	3	3	2		3	2	2	3
CO3	3	3	2	2	2	3	2	3
CO4	3	3	3	3	2	3	2	3
CO5	3	3	3	2	2	3	2	3
AVERGE	3.0	3	2.4	2.3	2.4	2.6	2	2.8

CHARAKA POORVARDHA
THEORY -ONE PAPER-100 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO 1	Justify the Methodology of Charakasamhita by decoding vyakhyanas
CO 2	Relate and understand various concepts in Charakasamhita
CO 3	Explain and apply biological factors in the manifestation of diseases.
CO 4	Explain and utilize various siddhantas of Charaka samhita in clinical practice
CO 5	Demonstrate dravya and adravya based therapies.

CO - PO MAPPING

CHARAKA(POORVARDHA)								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	3	2		3	3	3	2
CO2	3	3	2	2	3	3	3	3
CO3	3	3	2	3	2	3	2	3
CO4	3	3	2	2	3	3	3	2
CO5	2	3	2	3	3	3		2
AVERAGE	2.6	3	2	2.5	2.8	3	2.7	2.4

DRAVYAGUNA VIJNANAM

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH) PRACTICAL-100MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Define the fundamental concepts of Dravyaguna vijnana and characteristics of medicinal plants
CO2	Describe the pharmacological actions and therapeutic uses of various ayurvedic drugs
CO3	Analyze the pharmacological profile of a given ayurvedic drug and predict its therapeutic applications
CO4	Critically evaluate the pharmacological and pharmacogenetic aspects of ayurvedic drugs
CO5	Develop a treatment plan incorporating ayurvedic pharmacology for a patient with a specific disease condition

CO - PO MAPPING

DRAVYAGUNA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	3	2					
CO2	2	2	2	2		2	2	2
CO3	2	3	3	3	2	2		2
CO4	2	2	2	2	2	2		3
CO5	3	2	3	2	3	3	2	2
AVERAGE	2.2	2.4	2.4	1.8	2.3	1.8	2	1.8

RASASHASTRA AND BHAISHAJYA KALPANA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH)
PRACTICAL100MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Know and understand the history and basic principles and technical terminologies(Paribhasha) of Rasashastra and Bhaisya kalpana.
CO2	Know the description and application of various Yantras, Mushas, Chullikas, Koshthis, putas, heating appliances Electric m u ffle furnace, thermocouple,pyrometer, Disintegrator, Mixer, Grinder, End Runner, Edge Runner, Sieve-Shaker, Granulator, Tableting machine, Pill making machines, Coating and Polishing pan, Capsule filling machine, Sieves and Mesh.
CO3	Know in d eta i I a bout pa rada, its sou rces,types,Dosha,Grahya-Agrahyata, gati,bandha, Shodhana ,samskara including Ashtasamskara, Murchhana , Jarana and various rasaushadhis.
CO4	Know in detail about Maharasa, uparasa, sadharana rasa,dhatu varga, ratna, uparatna,sudhavarga, sikata, kshara, visha, upavisha etc and also able to identify them

CO5	Know an d prepare panchavidha kashaya kaIpana,vati kalpana, snehakalpana, sandhana kalpana, Kritanna and Aushadhisiddha anna Kalpana, Bahyopacharartha kalpana, Netraupacharartha kalpana, Nasyopacharartha Kalpana, Dhumapanarth kalpana, MukhaprayogaJh kalpana, Basti kalpana
CO6	Understand the concept of pharamcovigilance, quality control, standardization andGMP, Drug and Cosmetics Act 1940 and Rules 1945,

CO - PO MAPPING

RASASASTRA AND BHAISHAJYA KALPANA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	2	2					2
CO2	2	3		2				2
CO3	3	3	3	3	3	3	2	3
CO4	2	3	3	2	2	2		3
CO5	3	3	3	3	2	2		3
CO6	2	2		2	2			2
AVERAGE	2.3	2.6	2.75	2.4	2.25	2.3	2	2.3

ROGANIDAN EVAM VIKRITI VIGYAN

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH)
PRACTICAL100MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	understanding the basics of disease causation in acc0rdance with principles ofayurvedic pathology (roganidan evam vikriti vigyan)
CO2	Understanding the a etiopathogenesis and symptoms of a disease and thereby reaching adiagnosis
CO3	to become skilled in clinical examination utilizing ayurvedic and contemporarypractices
CO4	Training on prescribing laboratory methods, imaging techniques and its ayurvedicinterpretations
CO5	Ability to diagnose and predict the prognosis of disease using ayurvedic andcontemporary practices
CO6	demonstrate ethics and show effective communication with patient, family andcommunity

CO - PO MAPPING

ROGANIDANA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2			2	2	
CO2	2	2	2		2	2	2	2
CO3	3	2	2		2	2	2	3
CO4	2	2	2		2	2	2	3
CO5	3	2	2		2	2	2	2
CO6	2	2			3	2	3	3
AVERAGE	2.5	2	2		2.2	2	2.1	2.6

SWASTHAVRITTA AND YOGA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH)
PRACTICAL100MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Definition and Basic principles of Swasthavritta and Community medicine
CO2	Interpret and classify the basic concepts in promotion of health and prevention ofdiseases

CO3	Demonstrate and advise Yoga and Naturopathy as health promotive and diseasepreventive regimen
CO4	Understand and apply the principles of environmental health and its effects on publichealth with control measures
CO5	Evaluate the principles, assessment of health & morbidity as a community physician
CO6	Develop the skills and research aptitude for the promotion of health and prevention of diseases

CO - PO MAPPING

	SWASTHAVRITTA							
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	2				2		
CO2	3	2	2			2	2	2
CO3	3	2	3		3	3	3	3
CO4	2	3			2	3	3	2
CO5	2	3	2	2	2	2	2	2
CO6	2				2			
AVERAGE	2.3	2.4	2.3	2	2.25	2.4	2.5	2.25

AGADA TANTRA

THEORY-ONE PAPER-100 MARKS	PRACTICAL 50MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Understand the concept of visha, sthavara visha, jangama visha and toxicology
CO2	Understand Vishopakrama described by Charaka, General principles of management of poisoning
CO3	Identify Sthavara and Jangama visha, Acids, Alkalies, Metals, Nonmetals, Asphyxiants, Kerosene, Organo phosphorus compounds, Alcohol, Household poisons
C04	Understand legal procedures: -Inquest, Evidence, Witness, Courts and their powers. Personal identity and its Medicolegal aspects, Forensic odontology, Introduction to Forensic Serology and DNA profiling
C05	Understand medico legal aspects of death, Injury, Asphyxia, Sexual offences, Virginity, Pregnancy, Delivery, Impotence & Sterility, Abortion, Infanticide, Battered baby syndrome. Medico legal autopsy and exhumation

CO - PO MAPPING

AGADATANTRA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	3	2		2			
CO2	3	3	2	2	3	3	2	2
CO3	3	3	3	2	3	3	2	3
CO4								
CO5								
AVERAGE	2.6	3	2.3	2	2.6	3	2	2.5

CHARAKSAMHITA UTTARARDHA

THEORY-ONE PAPER-100 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Define the contents in different sections of Charaka uttarardha
CO2	Differentiate the concept and meaning of all sections of Charaka Samhita
CO3	Apply the various chikitsa siddhantas and panchakarma procedures in practice.
CO4	Analyze the various terminologies with its relevance to the context
CO5	Interpreting the sloka meaning with the help of commentaries

CO - PO MAPPING

CHARAKA (UTTARARDHA)								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	2		3	2	3	2
CO2	1	3	2	2	2	2	2	2
CO3	3	3	2	2	3	2	3	3
CO4	3	3	2		3	3	3	2
CO5	3	3	2	2	3	3	3	2
AVERAGE	3	3	2	2	3	2.4	2.8	2.2

KAUMARABHRITYA

THEORY-ONE PAPER-100 MARKS PRACTICAL 50MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	To define and memories basic knowledge about newborn care and pediatric care
CO2	To achieve descriptive understanding about child nutrition, nutritional disorders and their management
CO3	To achieve application knowledge about diseases pertaining to neonatal as well as pediatric age group and their management
CO4	To develop an analytical understanding of ayurvedic and modern procedures and investigations in neonatal and pediatric practice

CO5	To justify and value conclusive decisions and to formulate new innovative approachto different aspects of kaumarabhritya

CO - PO MAPPING

KAUMARABHRITYA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	2		3	2	3	2
CO2		2	2	2	2	3	2	2
CO3	2	2	3		2	2	2	2
CO4	2	2	3		2	2	2	2
CO5	3	2			2	2	2	2
AVERAGE	2.5	1.8	2.5	2	2.2	2.2	2.2	2

PRASUTI TANTRA EVUM STREE ROGA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH)
PRACTICAL200MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Basic Conceptional Recalling About Prasuti Tantra Evum Stree Roga
CO2	To Acquire Descriptive Knowledge About Concepts of Prasuti TantraEvum Stree Roga
CO3	To Acquire the Application-Level Knowledge to Execute and Operate Clinical Conditions in Prasuti tantra Evum Stree Roga

CO4	To Acquire Analytic Understanding to Draw Connections and Differentiate to Develop Clinical Skills in Prasuti Tantra vEum Stree Roga
CO5	To Evaluate Conclusive Decisions in The Aspects of Prasuti Tantra EvumStree Roga
CO6	To Design and Develop Newer Innovative Approach Towards PrasutiTantra Evum Stree Roga

CO - PO MAPPING

PRASUTI TANTRA EVUM STREEROGA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2					
CO2	3	2	2					
CO3	2	2	3	2	2			
CO4	2	3	2		2			
CO5			2		3	2	2	2
CO6			2					3
AVERAGE	2.5	2.25	2.16	2	2.3	2	2	2.5

SHALYATANTRA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH) PRACTICAL-100MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Recognizing and understanding of basics principles of shalyatantra along with generalprinciples of surgery
CO2	Comprehensive knowledge in the theoretical concepts of shalyatantra and evaluatingthe facts of surgery.
CO3	Competency in shastrakarma techniques and application of practical knowledge insurgery
CO4	To acquire analytical understanding to differentiate and develop the techniques oftreatments in field of research

CO - PO MAPPING

SHALYA TANTRA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	2	2		2			2
CO2	2	2	2	2				2
CO3	2	2	2	2	3	2	2	3
CO4	2	3	2			2	2	3
CO5				2	2			
CO6		2	2					
AVERAGE	2	2.5	2	2	2.3	2	2	2.5

SHALAKYA TANTRA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH) PRACTICAL - 200MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Understand the significance of the fundamental ideas of Shalakya Tantra in relationto the community's health requirements.
CO2	To acquire comprehensive understanding about shalakya illnesses, including nidanapanchaka
CO3	Inculcate the student with clinical examination, diagnosis and treatment of diseases,mastering the skills in performing therapeutic procedures of netra karna nasa mukhaand shiras
CO4	Capable of raising public awareness about illness prevention
CO5	Design and develop newer innovative approach in shalakyatantra

CO - PO MAPPING

SHALAKYA TANTRA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2			2		
CO2	3	2	2		2	2	2	2
CO3	3	3	3	3	3	3	3	3
CO4	2	2				2	3	2
CO5	2	3	2	2				3
AVERAGE	2.6	2.8	2.25	2.5	2.5	2.25	2.6	2.5

PANCHAKARMA

THEORY-ONE PAPER-100 MARKS PRACTICAL 50MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Develop a basic conceptual understanding of Panchakarma
CO2	Acquire descriptive knowledge of various Panchakarma procedures
CO3	Develop practical skills in performing various Panchakarma procedures.
CO4	Gain analytical understanding of procedural complications and their management

CO5	Enhance the ability to evaluate and make conclusive decisions on Panchakarma treatments.
CO6	Design and implement innovative approaches to Panchakarma practices.

CO - PO MAPPING

PANCHAKARMA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2					
CO2	3	2	2					
CO3	3	3	3	2		3		
CO4	3	2	2	2		3		
CO5	2	2	2	2	3	2	2	2
CO6	2	2	2		2	2	2	3
AVERAGE	2.6	2.16	2.16	2	2.5	2.5	2	2.5

KAYACHIKITSA

THEORY-TWO PAPERS-200 MARKS (100 MARKS EACH)
PRACTICAL200MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Understand the significance of the fundamental ideas of Kayachikitsa in relation to the community's health Requirements

CO2	To acquaire comprehensive understanding about kayachikitsa Illness,including nidana panchaka
CO3	Inculcate the student with clinical examination, diagnosis, and Treatment of diseases.
CO4	Capable of raising public awareness about illness prevention
CO5	Design and develop newer innovative approach in kayachikitsa

CO - PO MAPPING

KAYACHIKITSA								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2		3	2	3	2
CO2			2			3	2	2
CO3	2					3	2	2
CO4	3	2			2	2	3	
CO5			2	2				2
AVERAGE	2.6	2	2	2	2.5	2.5	2.5	2

RESEARCH METHODOLOGY AND MEDICAL STATISTICS

THEORY-ONE PAPER-50 MARKS

COURSE OUTCOME

AT THE END OF THIS COURSE, THE STUDENT WILL BE ABLE TO

CO1	Apply Basic Research Methodology Concepts.
CO2	Identify The Importance and Analyze the Clinical Research.
CO3	Apply Research in Regular Ayurvedic Practice

CO - PO MAPPING

RESEARCH METHODOLOGY AND MEDICAL STATISTICS								
CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	2	2					
CO2	2	2	2					
CO3	2	2						
AVERAGE	2	2	2					

1ST YEAR

SL NO	SUBJECT	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1	Rachana Shareera	2.7	2.16	2	2				2
2	Kriya Shareera	2.6	2.6	2.6	2	2	2	2	
3	Padarthavijana	3.0	3	2.4	2.3	2.4	2.6	2	2.8
4	Sanskrit	2.6	2.4	2.2	2	2			
5	Moulika Siddhanta Evamastanga hyridya	2.8	3	2.5	2	2.8	2.5	2.3	2.8
Average		2.74	2.63	2.34	2.06	2.3	2.36	2.1	2.53

2nd YEAR

SL NO	SUBJECT	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1	Rasasastra And Bhaishajakalpana	2.3	2.6	2.75	2.4	2.25	2.3	2	2.3
2	Dravyaguna Vijana	2.2	2.4	2.4	1.8	2.3	1.8	2	1.8
3	Roganidana	2.5	2	2		2.2	2	2.1	2.6
4	Charaka (Poorvardha)	2.6	3	2	2.5	2.8	3	2.7	2.4
Average		2.4	2.5	2.28	2.23	2.38	3.03	2.2	2.275

3rd YEAR

SL NO	SUBJECT	PO1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1	Agadatantra	2.6	3	2.3	2	2.6	3	2	2.5
2	Swasthavritta	2.3	2.4	2.3	2	2.25	2.4	2.5	2.25
3	Charaka (Uttarardha)	3	3	2	2	3	2.4	2.8	2.2
4	Kaumarabhritya	2.5	1.8	2.5	2	2.2	2.2	2.2	2
5	Prasutitantra Evum Streeroga	2.5	2.25	2.16	2	2.3	2	2	2.5
Average		2.58	2.49	2.25	2	2.47	2.4	2.3	2.29

4TH YEAR

SL NO	SUBJECT	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
1	Shalyatantra	2	2.5	2	2	2.3	2	2	2.5
2	Shalakyatantra	2.6	2.8	2.25	2.5	2.5	2.25	2.6	2.5
3	Kayachikitsa	2.6	2	2	2	2.5	2.5	2.5	2
4	Panchakarma	2.6	2.16	2.16	2	2.5	2.5	2	2.5
5	Resaearch Methodology And Medical Statistics	2	2	2					
Average		2.56	2.29	2.08	2.12	2.45	2.31	2.275	2.375

PROGRAMME WISE CO -PO MAPPING

SL NO	SUBJECT	PO1	PO 2	PO3	PO4	PO5	PO6	PO7	PO8
1	RACHANA SHAREERA	2.7	2.16	2	2				2
2	KRIYA SHAREERA	2.6	2.6	2.6	2	2	2	2	
3	PADARTHAVIJANA	3.0		2.4	2.3	2.4	2.6	2	2.8
4	SANSKRIT	2.6	2.4	2.2	2	2			
5	MOULIKA SIDDHANTA EVAM ASHTANGA HTRIDYA	2.8	3	2.5	2	2.8	2.5	2.3	2.8
6	CHARAKA(UTTARARDHA)	3	3	2	2	3	2.4	2.8	2.2
7	SWASTHAVRITTA	2.3	2.4	2.3	2	2.25	2.4	2.5	2.25
8	RASASASTRA AND BHAISHAJAKALPANA	2.3	2.6	2.75	2.4	2.25	2.3	2	2.3
9	DRAVYAGUNA VIJANA	2.2	2.4	2.4	1.8	2.3	1.8	2	1.8
10	AGADATANTRA	2.6	3	2.3	2	2.6	3	2	2.5
11	ROGANIDANA	2.5	2	2		2.2	2	2.1	2.6

12	CHARAKA(POORVARDHA)	2.6	3	2	2.5	2.8	3	2.7	2.4
13	SHALYATANTRA	2	2.5	2	2	2.3	2	2	2.5
14	SHALAKYATANTRA	2.6	2.8	2.25	2.5	2.5	2.25	2.6	2.5
15	KAYACHIKITSA	2.6	2	2	2	2.5	2.5	2.5	2
16	PANCHAKARMA	2.6	2.16	2.16	2	2.5	2.5	2	2.5
17	KAUMARABHRITYA	2.5	1.8	2.5	2	2.2	2.2	2.2	2
18	PRASUTITANTRA EVUM STREEROGA	2.5	2.25	2.16	2	2.3	2	2	2.5
19	RESAEARCH METHODOLOGY AND MEDICAL STATISTICS	2	2	2					
	AVERAGE	2.5	2.4	2.1	2.08	2.4	2.34	2.23	2.3

CONCLUSION

The Outcome-Based Education (OBE) approach in Ayurvedic curriculum development represents a paradigm shift towards ensuring that students are not only knowledgeable but also competent to meet the demands of modern healthcare while upholding the values and principles of Ayurveda. By aligning learning outcomes with national and global healthcare standards, this curriculum aims to nurture holistic professionals who are adept in Ayurvedic sciences and capable of integrating traditional wisdom with contemporary medical practices.

This manual serves as a guiding framework for institutions, faculty, and students to achieve excellence through structured learning objectives, effective assessment methods, and continuous quality improvement. By fostering critical thinking, ethical practice, and lifelong learning, the OBE approach ensures that graduates of Ayurveda are well-prepared to contribute meaningfully to patient care, research, and the global recognition of Ayurveda.

In conclusion, the implementation of an OBE-based Ayurvedic curriculum marks a significant step forward in empowering future Ayurvedic practitioners to bridge tradition and innovation, thus advancing the vision of Ayurveda as a vital component of global healthcare.

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