



Outcome-Based Dynamic Curriculum for Postgraduate Ayurveda Education: A Radical Reform

Dr. Sheetal Roman, Dr. Rutuja Shah

Professor and Head of Department Kriyasharir, BAMS, PG Scholar

Dr. D. Y. Patil College of Ayurveda and Research Centre, Pimpri, Pune, Maharashtra, India

Editorial

The recent restructuring of the postgraduate (PG) curriculum in the field of Ayurveda marks a defining moment in the trajectory of Ayurvedic higher education and professional training in India. With the 2024-25 academic year, the National Commission for Indian System of Medicine (NCISM) has formally implemented a competency-based, outcome-driven, modular framework for MD/MS Ayurveda courses at accredited institutions.^{1,2} This reform reflects a significant pedagogical shift in the way Ayurveda is taught, learned and applied in contemporary healthcare and academic environments.

Need for Reform: Bridging Tradition and Contemporary Standards

Traditionally, postgraduate education in Ayurveda has emphasized intensive textual study, philosophical interpretation and an apprenticeship-based clinical training. While this approach has preserved the epistemological integrity of Ayurveda, it has also been characterized by considerable inter-institutional variability in pedagogy, assessment methods and research orientation.³ Such heterogeneity has posed challenges in academic comparability and has an impact on the quality and quantity of research output, and also on clinical credibility in modern healthcare systems.

With the growing global emphasis on evidence-based medicine, integrative healthcare and interdisciplinary research, the need to align Ayurvedic postgraduate education with contemporary academic standards has become increasingly apparent. The revised PG curriculum is therefore a deliberate and strategic initiative aimed at harmonizing traditional Ayurvedic wisdom with modern educational methodologies and research standards.

Salient Features of the Revised Post graduate Curriculum

The new postgraduate curriculum in Ayurveda is structured around several defining features that collectively enhance its academic rigor and clinical relevance:

- **Semester-Based Modular Structure:** The new postgraduate programme is now semester-based, dividing the course into sequential and manageable learning modules. This approach facilitates gradual knowledge acquisition, continuous engagement and systematic skill development, while enabling regular formative assessments and academic monitoring.
- **Competency and Outcome Based Design:** The curriculum is explicitly aligned with defined learning objectives, competency standards, and module-specific objective evaluation criteria. Assessment strategies are designed to evaluate demonstrable clinical, academic and research competencies rather than

mere content recall, thereby reducing subjectivity and promoting national uniformity in postgraduate training standards.

- **Intensified Training in Research & Biostatistics:** A structured course in research methodology and biostatistics has been introduced as a compulsory component in the first semester. This initiative equips postgraduate scholars with essential skills in literature review, study design, ethical research conduct, data analysis and scientific writing, thereby strengthening the research foundation of Ayurvedic education.
- **Elective Modules and Capacity-Enhancement Options:** The inclusion of elective modules offers flexibility for students to pursue specialized clinical, academic or research interests. This learner-centric approach facilitates focused skill development, interdisciplinary exposure and professional adaptability.

Benefits of the New Outcome-Based PG Curriculum in Ayurveda

Outcome-based education (OBE) shifts the emphasis of postgraduate Ayurveda training from syllabus completion to measurable competencies, skill acquisition, and overall professional development. The new Post Graduate curriculum, based on defined learning outcomes, provides a transformative approach to clinical, academic, and research capabilities.

1. Student-Centred Learning

Within the Outcome based education framework the learner becomes the main axis of the educational process, which moves the emphasis from teacher-dominated delivery to experience-driven and participatory engagement. Deeper cognitive processing is facilitated by active participation through case-based learning, bedside clinical exposure, structured discussions, and real-time clinical decision-making. This method facilitates the meaningful integration of traditional Ayurvedic concepts into real-world clinical situations and improves knowledge retention.⁴

2. Academic Accountability and Transparency

In the new postgraduate Ayurveda curriculum, clearly stated learning outcomes specify the competencies expected at each stage of training. By reducing variation in teaching and assessment methods, this framework increases accountability for both students and teachers. Standardized benchmarks safeguard academic integrity, allow objective evaluation, and guarantee that postgraduate students at all institutions reach a consistent minimum level of clinical, research, and theoretical competency.⁵

3. Continuous Engagement and Progressive Learning

The revised postgraduate Ayurveda curriculum promotes continuous academic engagement through phased competencies, regular assessments, and sustained clinical immersion, fostering consistent learning, reflective reasoning, and real-time skill integration.⁵ At the same time, there is an increasing demand for an epistemologically robust “Ayurveda Biology” framework, which underscores the necessity for postgraduate training that facilitates hypothesis-driven, interdisciplinary research on fundamental Ayurvedic concepts. The outcome-based curriculum is specifically designed to address this gap, ensuring that students are equipped to engage critically with both traditional knowledge and contemporary scientific inquiry.⁶

4. Enhancement of Problem-Solving Ability

Through its outcome-oriented approach, involves students in real and simulated clinical environments that require analytical reasoning and diagnostic interpretation. Case-based exercises assist students in systematically assessing clinical presentations, linking them to dosha-dhatu-mala dynamics, and incorporating relevant cross disciplinary insights. As a result, graduates emerge with clinical judgment and can manage complex cases with greater diagnostic accuracy and therapeutic confidence.⁷

5. Promotion of Personalised Learning

The updated PG curriculum in Ayurveda allows students to tailor their learning to their specific interests and goals. Electives, research projects, and special clinical postings facilitate students to gain expertise in areas such as *Kayachikitsa*, *Shalakyatantra*, *Rasashastra*, or even modern research fields. This flexibility allows each student to develop their own strengths and become proficient in the area they choose to focus.

6. Development of Critical Thinking and Reflective Analysis

The revised curriculum includes journal clubs, research methodology training, literature appraisal exercises, and data interpretation sessions. These activities nurture analytical thinking, inquiry driven learning, and evidence-based clinical reasoning. Together, they promote a reflective academic mindset essential for high-quality research and the advancement of Ayurveda.

7. Strengthening of Real-World Clinical and Research Skills

The outcome-based PG curriculum promotes practical skill development by connecting theoretical learning to direct clinical application. Students receive hands-on training, maintain standardised case documentation, participate in interdisciplinary collaborations, and complete research projects as core requirements. This approach sharpens diagnostic judgment, enhances communication, and promotes ethical clinical practice, preparing graduates to work confidently in clinical, academic, and global research environments.

8. Enhanced Faculty Engagement and Development

The successful implementation of an outcome-based postgraduate curriculum in Ayurveda relies on faculty evolving into facilitators of learning, clinical mentors, and competency assessors rather than passive knowledge transmitters. This approach requires faculty to align teaching strategies, clinical training, and assessment methods with clearly defined competencies to achieve measurable academic and clinical outcomes. By adopting an active role, faculty can enhance educational quality and better prepare practitioners for the demands of modern healthcare.⁸

9. Innovative and Multimodal Teaching Strategies

Educational evidences emphasize the significance of student-centred, multimodal teaching strategies in postgraduate Ayurvedic education. Research in anatomy learning shows that kinaesthetic and experiential approaches improve understanding and retention of complex concepts, emphasizing the advantages of active, practice-based learning over traditional lecture methods. The outcome-based Post Graduate curriculum, which includes bedside teaching, case discussions, and applied learning, is consistent with adult learning principles and accommodates a variety of learner preferences.⁹

10. Continuous Formative Assessment and Feedback

Findings from mixed-methods evaluations of formative assessment in postgraduate training highlight the importance of continuous assessment and feedback in enhancing competency acquisition. This principle is directly aligned with the outcome-based reforms being implemented in Ayurveda education.¹⁰

The restructured postgraduate curriculum in Ayurveda is designed to align with the principles outlined in the National Education Policy (NEP) 2020 for profound higher education. This policy advocates for a shift toward a more competency-based, learner centred, flexible, and research-oriented approach to higher education. Moreover, the curriculum effectively combines classical Ayurvedic teachings with applied biomedical sciences and offers elective modules, thereby promoting multidisciplinary learning and personalized educational pathways. Collectively, these reforms put NEP 2020 into practice within the field of Ayurveda education. This approach not only enhances academic rigor and clinical relevance but also bolsters global competitiveness while maintaining the traditional foundations of Ayurveda.¹¹ In accordance with the National Education Policy (NEP) 2020, the implementation of a credit-based system in postgraduate Ayurveda education promotes learner autonomy, academic flexibility, and competency-based advancement. By clearly

outlining credit allocation for coursework, clinical exposure, and research activities, this system ensures transparency, facilitates continuous assessment, and supports structured skill development.¹¹

Conclusion:

The new PG curriculum for Ayurveda is a progressive initiative that has the potential to reshape postgraduate education in the field. With thoughtful execution and continuous academic review, it can nurture a generation of Ayurvedic postgraduates who are strong in classical fundamentals, competent in clinical practice, and capable of meaningful research thereby contributing effectively to healthcare, wellness, education, and the global recognition of Ayurveda.

References:

1. National Commission for Indian System of Medicine (NCISM). *Outcome-based dynamic curriculum for MD/MS Ayurveda: Semester I – Research methodology (AYPG-RM)*. New Delhi: NCISM; 2024.
2. National Commission for Indian System of Medicine (NCISM). *Outcome-based dynamic curriculum for MD/MS Ayurveda: Semester I – Biostatistics (AYPG-BS)*. New Delhi: NCISM; 2024.
3. Baragi UC, Ganer JM. Bridging ancient wisdom and modern learning: the shift in Ayurvedic curriculum and NCISM innovations. *J Ayurveda Integr Med Sci*. 2025;10(3):1–3.
4. Harden RM, Crosby JR, Davis MH. AMEE Guide No. 14: Outcome-based education—Part 1: An introduction to outcome-based education. *Med Teach*. 1999;21(1):7–14.
5. higher education: challenges and benefits. *Int J Educ Psychol Sci*. 2025;3(5):511–530.
6. Joshi K. Ayurveda biology—the road not trodden. *J Ayurveda Integr Med*. 2023;14(2):100726. doi:10.1016/j.jaim.2023.100726.
7. Desai P. Case-based lectures: a new approach to teach basic sciences in Ayurved education. *J Health Sci Educ*. 2017;3:41–45.
8. Frank JR, Snell LS, Cate OT, Holmboe ES, Carraccio C, Swing SR, et al. Competency-based medical education: theory to practice. *Med Teach*. 2010;32(8):638–645. doi:10.3109/0142159X.2010.501190.
9. Hernandez JE, Vasan N, Huff S, Melovitz-Vasan C. Learning styles/preferences among medical students: kinesthetic learner's multimodal approach to learning anatomy. *Med Sci Educ*. 2020;30(4):1633–1638. doi:10.1007/s40670-020-01049-1.
10. Douglass K, Ahluwalia T, McKiernan B, et al. Introduction of a formative assessment tool in a post-graduate training program in India: a mixed methods evaluation. *Int J Emerg Med*. 2024;17:32. doi:10.1186/s12245-024-00604-6.
11. Ministry of Education, Government of India. *National education policy 2020*. New Delhi: Government of India; 2020.