

Content available at: <https://www.ipinnovative.com/open-access-journals>**Indian Journal of Pharmacy and Pharmacology**Journal homepage: <https://journals.ipinnovative.com/ijpp>**Editorial****NEP 2020 Pharmacy education and PCI curriculum 2026: Current challenges and future opportunities****Madhusudan Maity¹, Bikash Ranjan Jena¹, Surya Kanta Swain^{2*}** ¹Dept. of Pharmacy, The Neotia University, Saisha, D.H Road, West Bengal, India²Dept. of Pharmaceutics, Amity Institute of Pharmacy, Amity University Kolkata, AA-II, West Bengal, India**Abstract**

National Education Policy (NEP) 2020 is a new framework adopted by the Government of India during 2020. It is a major education reform introduced by the Government for important themes like learning towards actual knowledge, critical thinking, and creativity. The policy is intended to change the way education is delivered, to make learning more flexible, more practical, and more student-friendly. It aims at helping students develop critical thinking, creativity, skills, and overall personality. It also aids teachers with modern teaching methods. The goal of integrating the Pharmacy Council of India (PCI) curriculum with the NEP 2020 is to create a more effective model of pharmacy education that is outcome-based, multidisciplinary, skill-driven, and less dependent on memorization. Primary goals that center on experiential learning, interdisciplinary scope, academic flexibility for selecting skill courses, choice-based credit systems (CBCS), and the use of cutting-edge tools in contemporary pharmacy curricula, such as Python programming, Artificial Intelligence (AI), and Machine Learning (ML), or incorporating computational pharmaceutics, etc., for drug formulation development. However, it encounters some challenges that include unyielding legacy laws, inadequate infrastructure, and unprepared faculty or faculty readiness to implement interdisciplinary pharmacy programs. Current editorial review intensifies the modern outcome-based applications, strategies, and future scope of NEP 2020 integrating pharmacy education.

Keywords: Artificial Intelligence (AI), Machine Learning (ML), Computational pharmaceutics, Choice-based credit systems, Skill courses.**Received:** 13-07-2026 **Accepted:** 16-07-2026 **Available Online:** 03-08-2026

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The rapid evolution in the field of medical science is advancing the healthcare system towards digitalization day by day by integrating the concept of artificial intelligence (AI), precision medicine, and patient-centered healthcare. As a result of this, the pharmacy profession is also undergoing a rapid transformation and continuously moving away from traditional knowledge-based instruction toward Competency-Based Education (CBE). The International Pharmaceutical Federation (FIP) and several accreditation bodies have already recommended new curricula for preparing the future pharmacist ready for challenging healthcare needs, rather than only theoretical knowledge.¹ In India, the National Education Policy (NEP) 2020 introduced a transformative framework for higher education by integrating a multidisciplinary learning approach in addition to research, innovation, and outcome-based learning. Aligning with this framework, the Pharmacy Council of India (PCI) has also revised and launched the new B.Pharm Curriculum 2026. The new syllabus replaced the traditional approach with research and experiment-based learning and also integrates several emerging domains, including AI, Python programming, and other forms of digital health.² This reformation provides a wide opportunity to strengthen the pharmacy education system and make the graduate competent enough as per the global standards. However, smooth

implementation of the revised curricula will take time because of the current challenges, which include reformation in the examination system, curriculum planning, and faculty development programmes related to the new revised syllabus and technological concerns. However, successful translation will lead to the development of a stronger and more organized pharmacy education system.

2. Current Challenges and Future Perspectives

Despite the progressive vision of this approach, smooth implementation is still facing several challenges. One of the major challenges of this transition is the institutional infrastructure and technology. The transition toward the new approach demands more experimental facilities, advanced technology, and trained faculty members for the effective demonstration of Python programming and AI-based programs.³ However, most of the institution fails to fulfill this demand in the current scenario. Another major concern is the lack of industrial and academic partnerships, which help in performing extensive research projects and enhance experimental learning. This also helps in a smooth transition of the pharmacy graduates from academic laboratories to industrial environments. From traditional knowledge-based examination to implementation of outcome-based assessment is another major concern. The smooth transition will majorly depend on continuous faculty training programmes

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for the multidisciplinary courses, better academia-industry partnership, digital infrastructure, institutional support, and continuous outcome-based assessment^{4,5} aligning the PCI curriculum with NEP will further improve the role and impact of the pharmacy profession on the global health care system and will prepare the graduates more efficient in handling global health emergencies.⁶

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