

GOVERNMENT OF INDIA
MINISTRY OF EDUCATION
DEPARTMENT OF HIGHER EDUCATION

LOK SABHA
UNSTARRED QUESTION NO. 2470
ANSWERED ON 03.08.2026

Integration of Skill Development and Vocational Courses in HEIs

†2470. Shri Darshan Singh Choudhary:

Will the Minister of EDUCATION be pleased to state:

- (a) whether the Government is implementing any comprehensive action plan for integrating skill development and vocational courses with regular academic programmes in Higher Educational Institutions (HEIs) in accordance with the provisions of the National Education Policy (NEP), 2020, if so, the details thereof;
- (b) the details of the progress made with regard to the integration of skill-based and vocational courses in universities and colleges, partnerships with industries, internships, apprenticeships and credit-based skill programmes during the last three years; and
- (c) whether the Government is undertaking any special initiative to incorporate skill courses relating to Artificial Intelligence (AI), drones, robotics, cyber security, data analytics, green technology and other emerging fields extensively into higher education and to regularly update the curricula in accordance with industry requirements, if so, the details thereof?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF EDUCATION
(DR. SUKANTA MAJUMDAR)

(a) to (c): The National Education Policy (NEP), 2020 promotes holistic, multidisciplinary and flexible higher education, enabling students to acquire knowledge and skills beyond a single discipline and pursue diverse educational and professional pathways. It envisages integration of vocational education into undergraduate and graduate programs. In line with (NEP), 2020, various measures have been taken to integrate skill development and vocational education with regular academic programmes in Higher Educational Institutions (HEIs). The National Credit Framework (NCrF), National Higher Education Qualifications Framework (NHEQF), Academic Bank of Credits (ABC) and Multiple Entry and Multiple Exit provisions provide for integration, accumulation and transfer of academic, vocational and experiential learning. The University Grant Commission (UGC) has supported skill-based education through Community Colleges, B.Voc. Degree Programmes and Deen Dayal Upadhyay Centres for Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood. The All India Council for Technical Education (AICTE) and UGC have issued guidelines for Apprenticeship Embedded Degree Programme (AEDP), 2025 for higher education programmes under their respective domains. National Apprenticeship Training Scheme (NATS) is implemented by the Department of Higher Education, Ministry of Education through four regional Boards of Apprenticeship Training/Practical Training (BoATs/BoPT) located at Mumbai, Kanpur,

Chennai and Kolkata. The scheme aims at providing on-the-job training and skilling of Indian youth. It provides apprenticeship training to Graduates / Diploma holders within the five years of completion of their courses and to the students of Apprenticeship Embedded Degree Programmes (AEDP). Under NATS, till date ~457 MOUs have been signed with HEIs for AEDP implementation.

Under the Approval Process Handbook (APH) 2024–2027, AICTE-approved existing institutions are permitted to conduct Vocational and Industrial Training Institute (ITI) courses by using their existing infrastructure, subject to the applicable provisions of the APH. Skill Universities are facilitating the integration of vocational education with higher education. Five Skill Universities have been recognised by NCVET (National Council for vocational Education and Training) as Awarding Bodies. This enables them to offer NSQF-aligned qualifications, award nationally recognised skill certificates and implement credit-based pathways under the National Credit Framework (NCrF), thereby promoting seamless mobility between vocational and higher education.

AICTE-approved programmes provide for mandatory internships, industrial training, project work and experiential learning. AICTE has promoted Industry-Institute Interaction through Memoranda of Understanding (MoUs) with industries and organisations for curriculum development, faculty training, internships, innovation and entrepreneurship. Further, 424 AICTE IDEA Labs have been established to promote experiential learning, innovation, design thinking and product development. The Institution's Innovation Council (IIC) ecosystem has also been strengthened to promote innovation, entrepreneurship and start-up culture. Apprenticeship opportunities have been promoted through collaboration with industries and support for apprenticeship-integrated degree programmes. Credit-based skill courses aligned with the NCrF and ABC provide flexible learning pathways. UGC has enabled Universities to adopt skill based micro-credentials as a part of their curriculum. These credit-based skill courses/micro-credentials are aligned with NCrF. To support skill development, the SWAYAM Plus portal has also been launched, focusing on upskilling and reskilling the workforce. Ministry of Skill Development and Entrepreneurship (MSDE), through Pradhan Mantri Kaushal Vikas Yojana (PMKVY) 4.0, has undertaken focused efforts to leverage the existing infrastructure and faculty base for delivery of skill-based training. PMKVY 4.0 has been designed as a demand-driven scheme with emphasis on industry-relevant, NSQF-aligned job roles, future skills and practical exposure through on-the-job training.

AICTE has developed and periodically revised Model Curricula by incorporating subjects relating to Artificial Intelligence (AI), Machine Learning, Data Analytics, Cyber Security, Robotics, Internet of Things (IoT), Drone Technology, Green Energy, Electric Vehicles, Semiconductor Technology, Quantum Technologies, Space Technology, Defence Technology and other frontier areas. The curricula are updated through expert committees comprising academicians, industry experts, professional bodies and Government stakeholders, keeping in view technological advancements and evolving industry requirements. Under NATS, till date more than 75000 apprentices have been benefited from the AI Apprenticeship Program. In SWAYAM Plus Portal more than 500 courses have been developed curated from 89 industry partners across 17 sectors and offered on emerging areas such as AI, Data Analyst etc.
