NEP@VIT

Vishwakarma Institute of Technology (VIT), Pune, established in **1983**, is the first autonomous institute in Maharashtra, India, with a distinguished legacy of over **43 years** of excellence in global and quality engineering education. Over the decades, VIT Pune has emerged as one of the most reputed engineering institutions in India, known for its pursuit of academic rigor, innovation, and holistic student development.

VIT Pune is built on a strong academic foundation anchored around four key pillars **Curriculum, Pedagogy, Industry Linkage, and Overall Student Development**. These pillars collectively define the institute's vision of creating a dynamic learning environment that blends technical knowledge with real-world skills and ethical values.

The institute's academic autonomy provides the flexibility to design and implement an agile and multidisciplinary curriculum that adapts to the rapidly changing needs of industry and academia. This autonomy allows for frequent syllabus revisions, inclusion of emerging technologies, and integration of interdisciplinary learning. Students are encouraged to pursue honors and minor programs, industry certifications, and elective courses that enhance their domain expertise and employability.

The pedagogical approach at VIT Pune emphasizes **student-centered, experiential, and skill-based learning**. Teaching methods go beyond conventional classroom lectures, incorporating **project-based learning**, **case studies, flipped classrooms, hackathons, and research-driven assignments**. These methodologies ensure that students develop **problem-solving abilities**, **analytical thinking, and innovation-oriented mindsets** key attributes for future engineers and technologists.

VIT Pune has established strong collaborations with leading industries and globally recognized universities, ensuring that students gain exposure to international standards of education and real-world practices. Through **internships, live industry projects, global immersion programs, and exchange opportunities**, students' experience hands-on learning that bridges the gap between theory and practice. Partnerships with organizations such as TCS, Infosys, Bosch, Deloitte, and Amazon, along with academic linkages with foreign universities, reflect the institute's robust industry-academia connect.

Research and innovation are deeply embedded in the institutional culture. VIT encourages research and specialization beyond undergraduate education, fostering intellectual curiosity and creativity among students and faculty members alike. The institute's research centers, innovation labs, and incubation facilities provide a platform for the development of **start-ups, patents, and socially impactful projects.**

Beyond academics, VIT Pune emphasizes the holistic development of students by nurturing **ethical values, leadership qualities, communication skills, and an entrepreneurial mindset**. The institute promotes a balanced environment where academics, cultural activities, and social engagements go hand in hand. Through value-based education, professional societies, and student-led clubs, learners are encouraged to become socially responsible and globally competent professionals.

With national and international accreditations, including **NAAC A++ and NBA** recognitions, along with **ISO certification**, VIT Pune continuously upholds the highest standards of academic quality and institutional governance.

In essence, Vishwakarma Institute of Technology, Pune, **focuses** not only on **what is taught** but also **on how it is taught** and, most importantly, **on what students become**. It stands as a model of excellence in engineering education shaping **competent professionals, innovative thinkers**, and **responsible global citizens** committed to contributing positively to society.

PROGRAM

(AUTONOMOUS UG STRUCTURE) (2025 PATTERN)

A. Definition of Credit:

1 Hr. Lecture (L) per week	1 Credit
1 Hr. Tutorial (T) per week	1 Credit
1 Hr. Practical (P) per week	0.5 Credit
2 Hr. Practical (Lab) per week	1 Credit

B. Range of Credits:

A range of credits from 160 to 176 for a student to be eligible to get undergraduate degree in Engineering. A student will be eligible to get undergraduate degree with Honours 20 credits and/or Minors 14 credits, if he/she completes additional credit

C. Credit for Undergraduate Degree in Artificial Intelligence and Data Science:

Sr. No.	Year	Semester	Credits
1	First Year B. Tech	I	20
2		II	20
3	Second Year B. Tech	III	21
4		IV	21
5	Third Year B. Tech	V	22
6		VI	22
7	Final Year B. Tech	VII	20
8		VIII	14
Total Credits			**160**

D. Structure of Undergraduate Engineering Program:

Sr. No.	Domains	Code	Credits	NEP Suggested
1	Basic Science Courses	BSC	14	14-18
2	Engineering Science Courses	ESC	12	12-16
3	Program Core Courses	PCC	46	44-56
4	Program Elective Courses	PEC	20	20
5	Open Elective Other than Particular Program	OEC	08	08
6	Multidisciplinary Minor	MDM	14	14
7	Vocational and Skill Enhancement Course	VSE	08	08
8	Humanities Social Science and Management	HSM	12	14
9	Experiential Learning Courses	ELC	22	22
10	Liberal Learning Courses	LLC	04	04
			160	**160-176**

(Dr. Parikshit Mahalle)

Dean Academics

The National Education Policy NEP implementation in the Institute is carried out in a multifaceted manner as follows –

1. **Collaboration with stakeholders and increasing awareness** : continuous interaction with Government authorities and regulatory bodies about implementation of NEP has been going on for more than year.

   Regular awareness about NEP and its development and implementation is provided on different for a such as Institute's Governing Body, Academic Board, Board of Studies and Industry Advisory Boards.

   This collaboration ensures effective communication and co-ordination in the execution of the NEP activities.

2. **Teacher training and professional development**: The institute invests in educator preparedness. There are planned initiatives taken for enhancing faculty knowledge and skills for successful implementation of innovative pedagogical practices aligned with the NEP objectives. The faculty also undergoes training sessions arranged by the affiliating University, University Grants Commission, Swayam portal of ministry of human Resource Development, National Institute of Technical Teachers Training and Research etc.

3. **Efforts for inclusivity and diversity** : The student activities of the institute are aimed to support the efforts to foster inclusivity and diversity. Under the guidance of affiliating University and the Institute authorities, NSS programs, Computer literacy Programs, Blood Donation camps etc. are arranged.

4. **Leveraging technology and digital infrastructure**: The Institute systematically blends on-line teaching-learning using established MOOCs offered by portals such as Swayam and also has on-boarded LinkedIn and plans to expand more in the upcoming Academic Year.