

MIT Art, Design & Technology
University, Pune



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

NEP 2020 HANDBOOK

Food Technology



NEP 2020

OCTOBER - 2023

Implementation of NEP 2020 at MIT-ADT University



**Hon. Prof. Dr. Mangesh Karad, V C & Hon. Prof. Dr. Anant Chakradeo, Pro V C
at NEP Meeting**



**Prof. Dr. Pandit B. Vidyasagar, Prof. Dr. Sadanand Gokhale & Dr. K. P. Ray -
the external experts at NEP Meeting**

NEP 2020 HANDBOOK



NEP 2020

Prof. Dr. Mangesh Karad

Executive President & Vice Chancellor

Prof. Dr. Anant Chakradeo

Pro. Vice Chancellor

Complied by

Prof. Dr. Kishore Ravande

OSD to VC

AUGUST - 2023

Disclaimer :

The content of this booklet is the Summary Information regarding various NEP 2020 aligned Programs offered at MIT-ADT University. The official curriculum document containing Semester wise Courses and Credit Structure and Syllabi of various programs is available with respective Deans/Hols/HoDs. Further, the basket of Multidisciplinary Courses/Elecives for Students to choose will be notified by respective Faculties/School/Institutes every semester as per the availability.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

PREAMBLE

NEP 2020 is envisaged to bring about radical change in the education system right from Pre-Primary years to Higher education. It promotes rigorous research-based specialization and opportunities for multidisciplinary work and interdisciplinary thinking at the Graduate, Master's and Doctoral level education in large multidisciplinary Universities of India. Conversion of Three Years bachelor's degree (UG) Programme to Four-year Multidisciplinary UG Programme with multiple entry and exit options is a major change that has been done to orient the students with right skill, attitude and employability. Besides this, NEP 2020 document has also recommended the introduction of multidisciplinary courses in existing Four Years UG programmes with provision to award UG degree with Major + Minor, Honours, & Honours with Research. With the introduction of Academic Bank of credits, the new education Policy has provided the facility for students to move from one University to another and accumulate their credits based on their work and be eligible to earn the degree. The NEP 2020 document has directed that University and College campuses nurture education and research activities that are alive to the dynamics and requirements of the society and Industry in the neighborhood. The new Education Policy thus envisages a holistic and multidisciplinary education system that would shape the younger generation into a holistic personality who are intellectually sharp, physically strong, mentally alert, emotionally balanced, morally and ethically elevated.

MIT-ADT University, a multidisciplinary University with Art, Design and Technology disciplines on the campus is all set to implement the New National Education Policy NEP 2020 from the academic Year 2023-24. With an Exclusive School of Holistic Development functioning on its campus from 2017, and UG/PG programmes in the discipline of Arts, Performing Arts, Sciences, Design, Engineering & Technology and Management being offered since 2016, the University is more than ready to adopt and implement New Education Policy NEP 2020. The Credit Structure of various programmes have been restructured as per NEP 2020 guidelines and the Academic Council has given approval for its implementation. A brief highlight of the School/Institute wise restructured Programmes for implementation with effect from Academic Year 2023-24 is presented here for the information of all the stake holders, particularly students.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

Date: 7th August 2023



Message from the Vice Chancellor...

Dear Students,

As the Vice Chancellor of this esteemed University, I am thrilled to witness the dawn of this new era in education. The NEP 2020 is a visionary document that aims to revolutionize our education system and empower our students to become leaders of tomorrow. It marks a significant departure from the traditional approaches and sets forth a comprehensive framework to address the evolving needs of our dynamic society. At the heart of the NEP 2020 lies the focus on holistic development and the nurturing of creativity and critical thinking. The policy advocates a multidisciplinary approach that encourages students to explore diverse subjects and discover their true passions. This flexibility in curriculum design will enable learners to become well-rounded individuals capable of tackling complex challenges in their chosen fields.

One of the key aspects of the NEP 2020 is the emphasis on research and innovation. As a research-intensive University, we are committed to fostering an environment that encourages curiosity and pushes the boundaries of knowledge. The policy's provisions for greater research funding and collaboration opportunities will undoubtedly fuel our pursuit of excellence. Furthermore, the NEP 2020 envisions an inclusive education system that caters to the needs of all learners, regardless of their background or abilities. We are dedicated to creating a welcoming and supportive campus where every individual can thrive and fulfill their potential. Through inclusive practices, we aim to build a diverse community that celebrates differences and cherishes the rich tapestry of human experiences.

As we embark on this transformative journey, I call upon all students of our University to actively participate in the implementation of the NEP 2020. Our collective efforts will be instrumental in shaping the future of education. Let us embrace this historic moment with optimism and determination. Together, we can create an educational ecosystem that inspires, empowers, and propels us towards a brighter future.

Prof. Dr. Mangesh Karad

Executive President & Vice Chancellor
MIT Art Design and Technology University, Pune



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

National Education Policy 2020

Government of India

Fundamental Principles

 Ministry of
**Human Resource
Development**
Government of India

 my
Gov
मेरी सरकार

SALIENT FEATURES OF NEP 2020:

FUNDAMENTAL PRINCIPLES OF THE POLICY (1/5)



Recognizing, identifying, and fostering the unique capabilities of each student, by sensitizing teachers & parents to promote each student's holistic development



Accord the highest priority to achieving Foundational Literacy and Numeracy by all students by Grade 3



Flexibility for learners to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents & interests



No hard separations between arts & sciences, between vocational & academic streams, etc. to eliminate harmful hierarchies among, and silos between different areas of learning



Multidisciplinary & holistic education across the sciences, social sciences, arts, humanities, and sports to ensure unity & integrity of all knowledge



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education



SALIENT FEATURES OF NEP 2020:

FUNDAMENTAL PRINCIPLES OF THE POLICY (2/5)



Emphasis on conceptual understanding rather than rote learning & learning-for-exams



Creativity & critical thinking to encourage logical decision-making & innovation



Ethics, human & Constitutional values like empathy, respect for others, cleanliness, courtesy, democratic spirit, spirit of service, respect for public property, scientific temper, liberty, responsibility, pluralism, equality, and justice



Promoting multilingualism & the power of language in teaching and learning



Life skills such as communication, cooperation, teamwork, and resilience



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

 Ministry of
**Human Resource
Development**
Government of India

**my
GOV**
मेरी सरकार

SALIENT FEATURES OF NEP 2020:

FUNDAMENTAL PRINCIPLES OF THE POLICY (3/5)



Focus on regular formative assessment for learning rather than the summative assessment that encourages today's 'coaching' culture



Extensive use of technology in teaching & learning, removing language barriers, increasing access for Divyang students, and



Respect for diversity and respect for the local context in all curriculum, pedagogy, and policy, always keeping in mind that education is a concurrent subject



Full equity and inclusion as the cornerstone of all educational decisions to ensure that all students are able to thrive in the education system



Synergy in curriculum across all levels of education from early childhood care and education to school education to higher education



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education



SALIENT FEATURES OF NEP 2020:

FUNDAMENTAL PRINCIPLES OF THE POLICY (4/5)



Teachers and faculty as the heart of the learning process - their recruitment, continuous professional development, positive working environments & service conditions



A 'light but tight' regulatory framework to ensure integrity, transparency, and resource efficiency of the educational system through audit and public disclosure while encouraging innovation and out-of-the-box ideas through autonomy, good governance, and empowerment



Outstanding research as a corequisite for outstanding education and development



Continuous review of progress based on sustained research and regular assessment by educational experts



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education



Ministry of
Human Resource
Development
Government of India



SALIENT FEATURES OF NEP 2020:

FUNDAMENTAL PRINCIPLES OF THE POLICY (5/5)



A rootedness and pride in India, and its rich, diverse, ancient and modern culture and knowledge systems and traditions



Education is a public service; access to quality education must be considered a basic right of every child



Substantial investment in a strong, vibrant public education system as well as the encouragement and facilitation of true philanthropic private and community participation



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

Salient Features of NEP aligned Programmes at various Schools/Institutes of MIT-ADT University, PUNE

➤ Philosophy & Salient Features of NEP 2020

National Education Policy- NEP 2020 is the first education policy of the 21st century built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability. This policy is aligned to the 2030 Agenda for Sustainable Development and aims to transform India into a vibrant knowledge society and global knowledge superpower by making primary, secondary and higher education more holistic, flexible, as well as multidisciplinary to match the requirements of present century. The new education policy essentially aims at bringing out the unique capabilities of each student.

The policy envisages a broad-based multi-disciplinary holistic education at the undergraduate level with an integrated based approach having rigorous exposure to Arts, Science, Humanities, Mathematics and Professional fields. These multidisciplinary subjects having imaginative and flexible curricular structures, with creative combinations of study along with integration of vocational education would enable the development of multiskilled human resources. The new policy makes a provision for multiple entry/exit points to facilitate student to choose the path, pace and the place of acquiring the qualification. A holistic and multidisciplinary education will help develop well-rounded individuals who possess critical 21st century capacities in fields across the Arts, Science, Humanities, Mathematics, Languages, Professional fields, and Vocational fields; an ethic of social engagement; soft skills, such as communication, discussion and debate; and rigorous specialization in a chosen field or fields. Such a holistic education shall be the aim and approach of all undergraduate Programmes, including those in Professional, Technical, and Vocational disciplines.

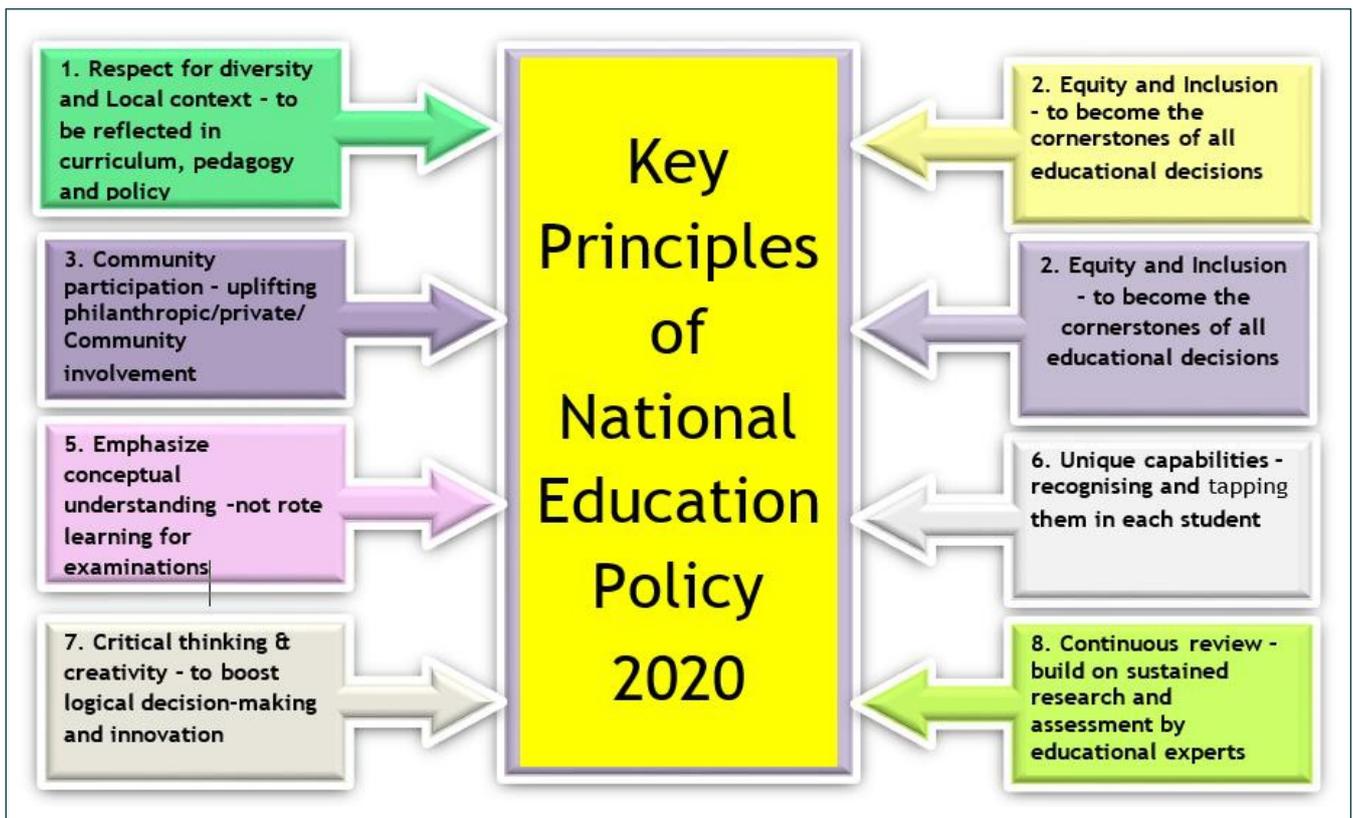
A holistic and multidisciplinary education would aim to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

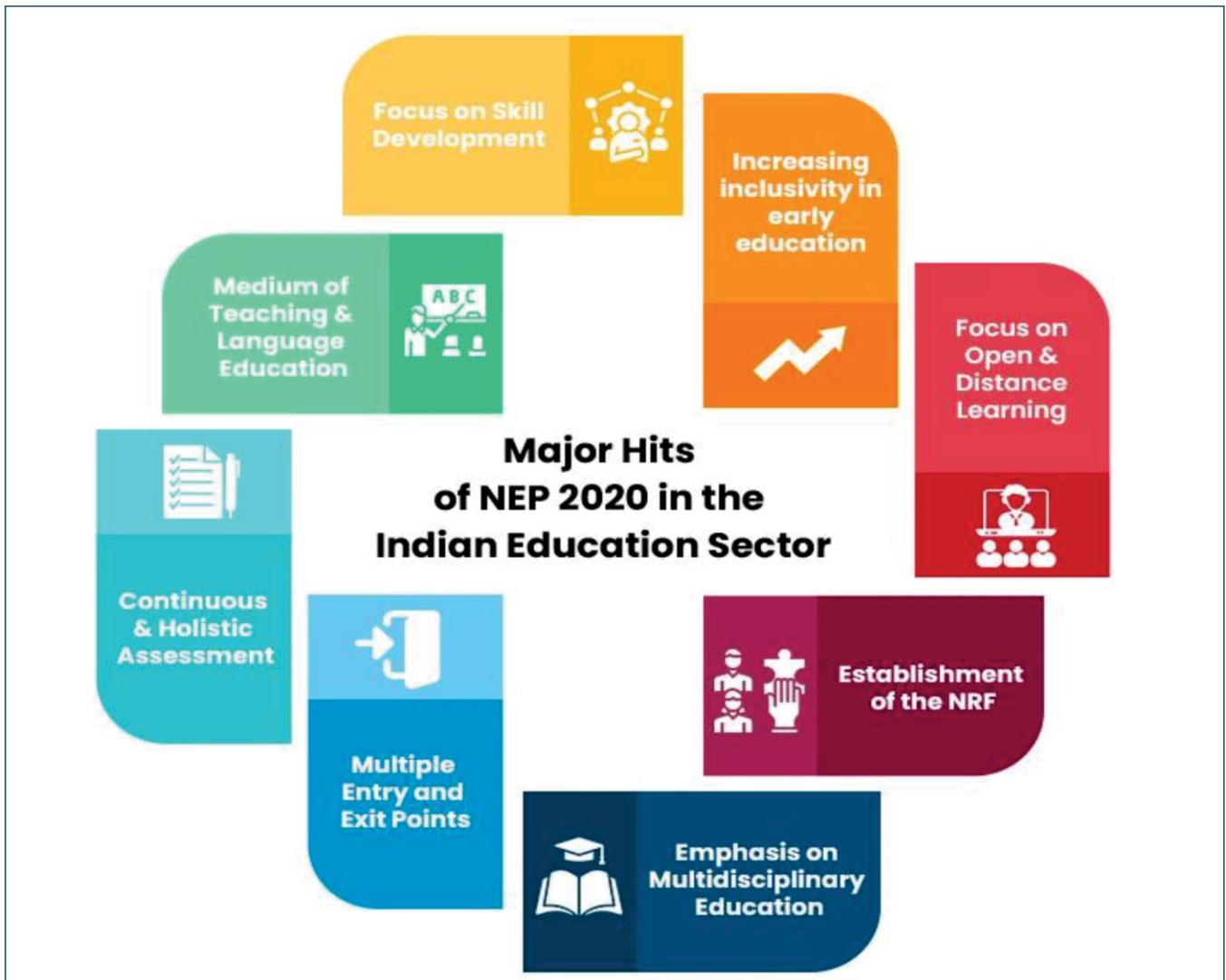




NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education



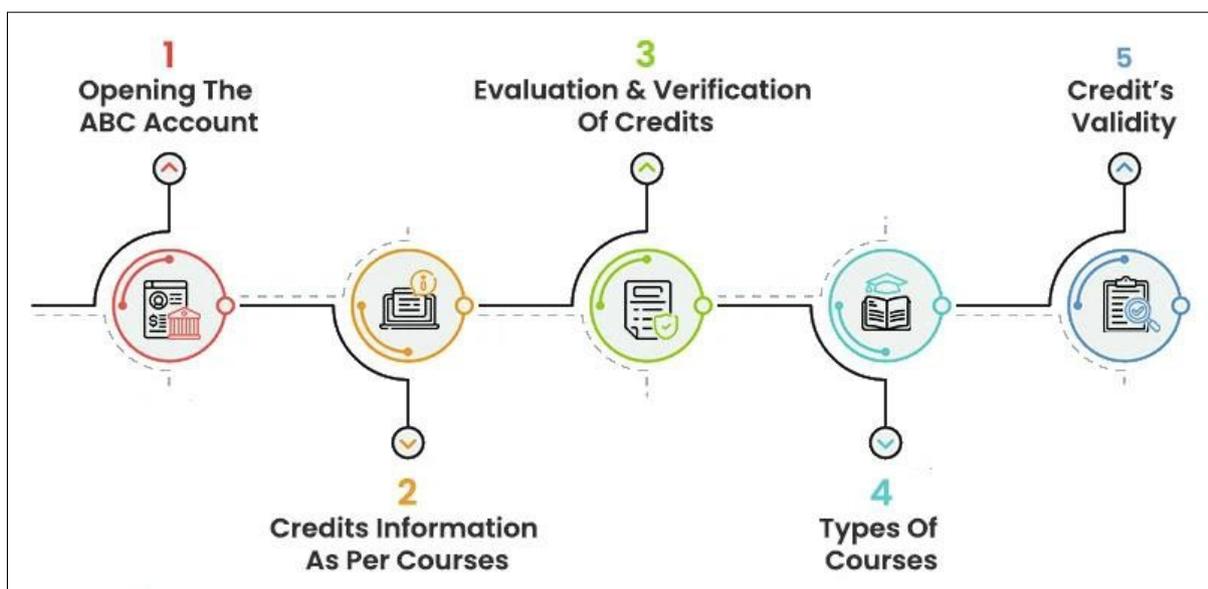


The salient features of the New Education Policy are:

- **Recognizing, identifying, and fostering the unique capabilities of each student**, by sensitizing teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres.
- **Flexibility** to learners to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests.
- **Multidisciplinarity** and a **Holistic Education** across the sciences, social sciences, arts, humanities, Professional fields and sports for a multidisciplinary world in order to ensure the unity and integrity of all knowledge.
- **Creativity and Critical thinking** to encourage logical decision-making and innovation.
- **Ethics and Human & Constitutional values** like empathy, respect for others, cleanliness, courtesy, democratic spirit, spirit of service, respect for public property, scientific temper, liberty, responsibility, pluralism, equality, and justice.
- **Life Skills** such as communication, cooperation, teamwork, and resilience.

Academic Bank of Credits (ABC)

- **Academic Bank of Credits (ABC) is a virtual/digital storehouse that contains the information of the credits earned by individual students throughout their learning journey.** ABC can be considered as an authentic reference to check the credit record of any student at any given point in time. It helps faculty and establishment to manage & check the credits earned by students. It will enable students to open their accounts and give multiple options for entering and leaving Colleges or Universities. There will be “multiple exit” & “multiple entry” points during the higher education tenure & credits will be transferred through ABC seamlessly.



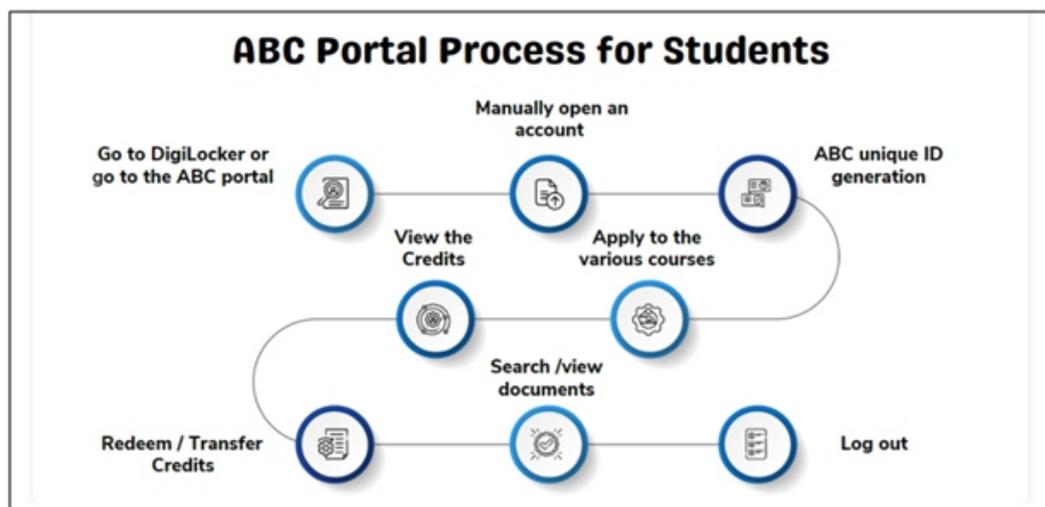


Key Features of Academic Bank of Credit (ABC)

- Increases the student's freedom in choosing their courses and academics.
- Enables the student to drop out in any year and then exchange the credits earned so far with a certificate/diploma if they are eligible.
- They can redeem the credits and rejoin the same or any other Institute/ University in the future and continue their education.
- Thus, the concept of ABC is helpful to the students to embrace a multi-disciplinary educational approach. The idea is to make students “skillful professionals” and help their overall growth. In a crux, the Academic Bank of Credits will be a game-changer in transforming Indian education to a great extent.

Creation of ABC Id for individual students

- As per the NEP 2020 policy it is compulsory for every student to generate ABC IDs. MIT ADT University has already generated more than 10000 ABC IDs for enrolled students. For newly admitted students, the respective school ABC ID Coordinator will share the step-by-step procedure to generate the ABC ID and help students to understand its potential benefits. The following figure illustrate the flow of process for generation of ABC ID.



Road Map for Implementation

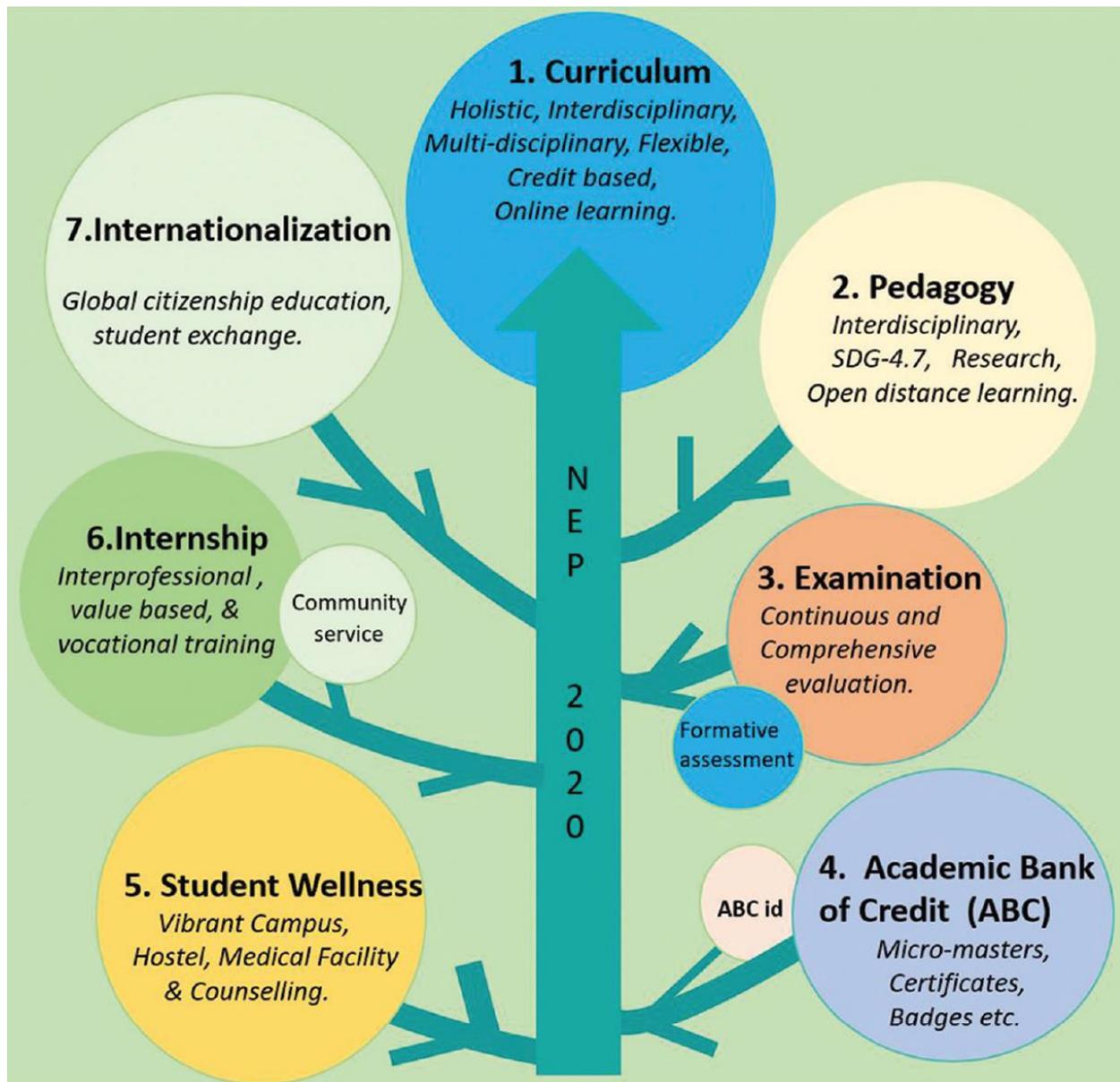
- MIT-ADT University has decided to restructure and align all the Programmes in accordance with the provisions of National Education Policy-NEP 2020 with effect from Academic Year 2023-24. The implementation of the same is being done in two phases with about 20+ Programmes restructured in the first phase (AY 2023-24) and remaining in the second phase. The road map for the implementation has been identified with key action plan necessary to facilitate the percolation of philosophy and salient features of NEP down to all the stakeholders particularly the students of this University.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education





NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

The following are the key action plans as a road map to successful implementation of NEP 2020

- Framework for mapping of academic credits among HEIs and the Intuitions of National importance through Academic Bank of Credit (ABC).
- Office for International Students to spread awareness and provide support.
- Logistic support in terms of Infrastructure & Faculty along with to strengthen existing environment for Multidisciplinary Education and Research.
- Regional level state of the art infrastructure for creating online courses.
- Standard Operating Procedure (SOP) through Internal Quality Assurance Cell (IQAC) which will ease the accepting of the credits during the multi-institute learning.
- Institutes/ Industry who offer courses and are ready for sharing credits, signing MOUs etc.
- Enhancing the competency and capability of University/Faculty to initiate the implementation of NEP-2020 effectively in their own University/Institutes and guiding other Institutes.
- Drafting general rules and guidelines for enabling the students to take up mandatory internship in industry, and assessment of the training outcomes to grant the relevant grades.
- Development and implementation of experimental/experiential learning curriculum.
- Introducing Industry relevant courses.
- Integration of curriculum suitable for multiple exits and multiple entries.
- A mechanism to monitor the balance between the Technical Education and Employability.
- Opportunities for strengthening unexplored domains of the faculty.
- Usage of Information Communication Technology (ICT) Tools in classrooms/ laboratories.
- Setting up the regulations in accordance with National Innovation Startup Policy (NISIP), enabling the students to take up start-up activities, in lieu of academic credit points.
- Establishment of Self learning and do it yourself (DIY) Laboratories.
- Formation of Equivalence and Admissions Committee (EAC).



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

Degree Program Curriculum

B. Tech. (Food Technology)

B. Tech. Food Technology (Hons.)

A. About the program:

- **Nomenclature of the program:** B. Tech. (Food Technology)
- **Program code:** B. Tech. (Food Technology) – BTFT
- **Intake capacity:** 120
- **Nature of Program:** Choice Based Credit System



VISION

To be a centre of excellence in training, research, outreach, and consultancy services in Food Science and Technology with emphasis on value addition of agricultural produce, processing technology driven conservation of food, nutritional goodness, food security and safety assurance through stake holder sensitization.

The fundamental mission of MIT-SFT is to emerge out as a global competitive centre (Institute) of excellence to impart graduation, post-graduation and Doctoral education programs (B. Tech., M. Tech. and Ph. D.) in the discipline of Food Science and Technology to satisfy futuristic new generation aspirations.



MISSION





● Program Outcomes -

Discipline specific knowledge:



Capability enhancement through learning fundamentals and cutting-edge aspect related to food technology by gaining knowledge in food science and allied specialized courses.

Problem solving:



Capacity to identify, analyze and resolve food industry need base problems and design solutions for complex problems that meet the specified needs with appropriate consideration for the food sustainability.

Critical thinking:



Competency development to think 'out of the box' and generate solutions for complex problems in unfamiliar contexts to resolve the challenges.

Communication skills:



Enhanced communication skills for effective transmission of technical knowledge to stockholders (farmers, industry, society) through development of vibrant ecosystem with face to face communication, research and review articles or social media.

Analytical reasoning/thinking:



Ability to analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and address conflicting viewpoints.

Research-related skills:



Efficacy development of the students to plan, execute and report the results of an experiment or investigation as well as projects with articulation of societal benefit-based thought process.



Multicultural competency & inclusive spirit:



Capability to work effectively with multidisciplinary teams/ multicultural team and facilitate coordinated effort as a group or a team in the interests of a common cause and work efficiently as a member of a team.

Gender sensitivity and adopting a gender-neutral approach, as also empathy for the less advantaged and the differently-abled including those with learning disabilities.

Adoption of multicultural groups with demonstrations of values for betterment of diverse culture society.

Digital and technological skills:



Capacity building technical skills to handle modern and sophisticated equipment, software, and IT tools for generation of need base products and processes.

Value inculcation:



Generation of holistic technocrats through inculcation of life skills, ethical practices to create vibrant human value systems-based thought process driven technological knowledge application mind set, exclusively for human welfare with due conservation of existing moral dimensions in every aspect of modern technology-based wealth generation.

Environment and sustainability:



Awareness about environmental issues related to food industries (pollution, climate change, hunger, and malnutrition) and trouble shoot them with effective suitable food processing, waste management, conservation and management of biological resources and work towards sustainable development.

Community engagement & services:



Capability enhancement of student as food technologist, sharing the responsibility as an Indian citizen in community-engagement services and activities for promoting the wellbeing of society.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

Life-long learning:



Ability to demonstrate the skills necessary to continually educate oneself and engage in independent and life-long learning in the broadest context of technological change and also to build the capacity to emerge out as an entrepreneur.

Program Specific Outcomes

Comprehensive knowledge of various areas related to Food Science and Technology & coherent understanding to process, preserve, package, store, and market the finished food product parallel to the industrial perfection.

Practical knowledge required for resolving industry base problems, skills for self-employment, and mindset for entrepreneurship to excel professional career in Food

Skills and attitude required to successfully contribute in processing, packaging, and preservation of food products by adopting multidisciplinary approach ensuring food safety & quality.

Ability of critical thinking and application of scientific principles to fulfill societal needs through development of new generation and value-added food products.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

- **Potential scope:**

MIT School of Food Technology is one of the flourishing constituent schools of MIT Art, Design and Technology University, at Rajbaug Educational Complex Loni-Kalbhor, Pune. MITADT University had acknowledged the recognition as State Private University by the Govt. of Maharashtra in 2016.

B. Tech. (Food Technology) degree program is one of the distinct multidisciplinary degree programs, its scope is coiling around inherent development and transformation of stakeholders (Students, Farmers, Industry personals and Public/Private components) to articulate professional domain based on Food Science and Technology. The special purpose vehicle stimulatory efficacy of program curriculum has visionary target of anticipated rejuvenation of economic sustainability of farmers, student's entrepreneurship, food technology related National and International policy framework and strengthening of Make in India Mission launched by Hon. Prime Minister of India.

The graduation in Food Technology can enable students to pursue their career in the reputed Food Processing Industries or Research Institutes as a research scientist, R and D manager and quality executive. It is possible for them to join as a faculty in reputed Food Technology Institutes. Further curriculum is with the potential of capacity Building of stakeholders to emerge out as an entrepreneur.

Present third revised program underlined the stakeholder approachable, skill oriented and flexible learning to offer the quality of education. The NEP guidelines are articulated to create the std. reference syllabus manual draft to satisfy the aspirations with future generations.



NEP 2020



**MIT-ADT
UNIVERSITY**
PUNE, INDIA
A leap towards World Class Education

 Honors Degree

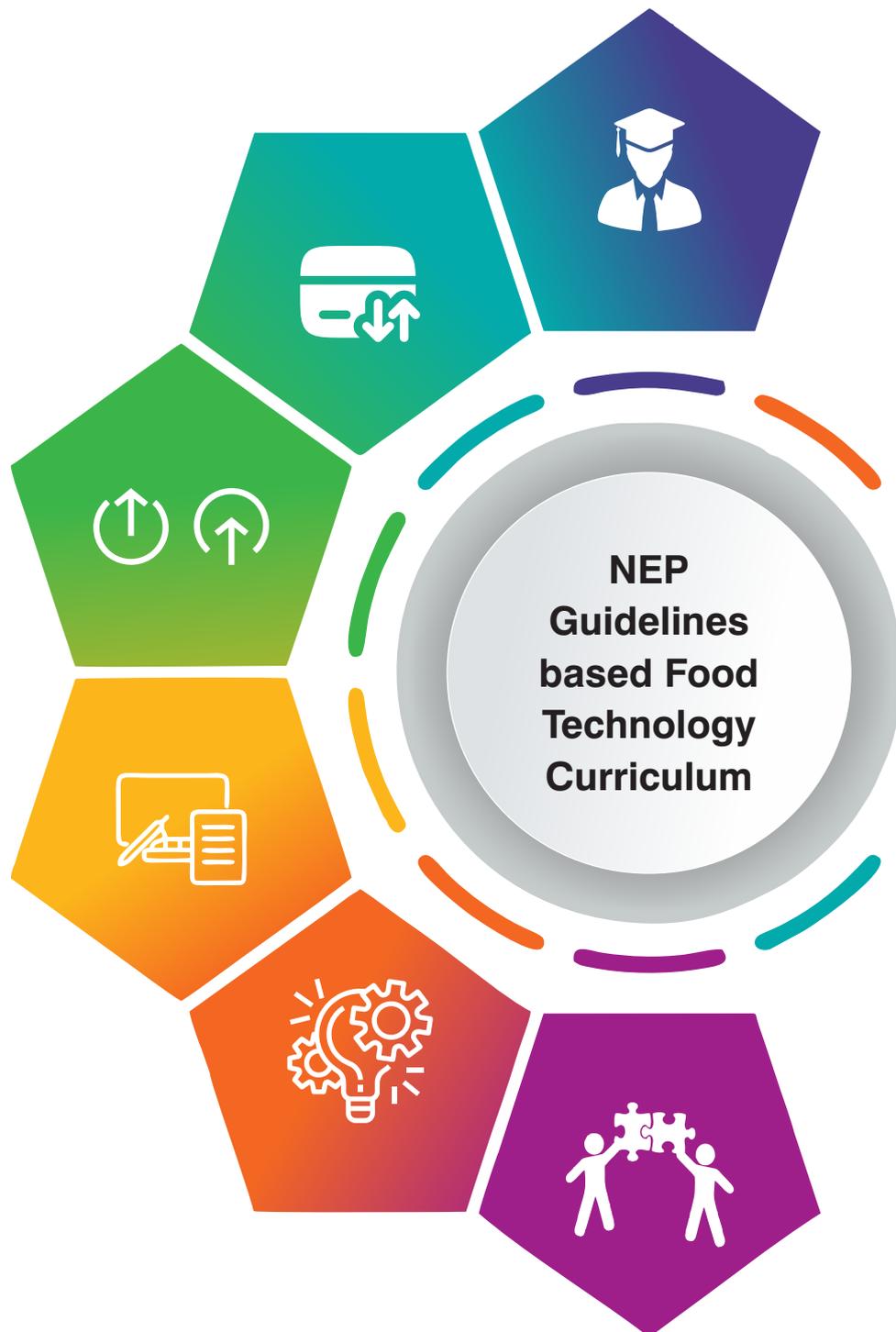
 Credit Transfer

 Multiple entry and exit

 Blended mode of teaching

 Project based learning

 Experiential learning





NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

B. Tech. (Food Technology) Degree program Structure

Sr. No.	Category / Type of Courses	Category / Type of Courses	Total courses offered	Break up of credits
1	BSC/ESC	Basic Science Courses (BSC)	4	10
		Engineering Science Courses (ESC)	4	8
2	Program Courses	Programme Core Courses (PCC)	21+4*	64+20*
		Programme Elective Courses (PEC)	7	18
3	Multidisciplinary Courses	Multidisciplinary Minor (MDM)	5	14
		Open /Generic Electives (OE/GE) (<i>other than a particular Program</i>)	4	8
4	Skill Courses	Vocational and Skill Enhancement Courses (VSEC)	5	8
5	MD Holistic Development Courses- <i>Humanities, Social Science and Management (HSSM) + Liberal Learning (LL)</i>	Ability Enhancement courses (AEC)	4	8
		Indian Knowledge System (IKS)	1	1
		Value Education/Value Addition/Professional Ethics/Life skills Courses (VEC/VAC/EVLSC)	5	5+1NC
		Co-curricular Courses (CC)	-	-
		Entrepreneurship/Economics/Management Courses	-	-
6	Experiential Learning Courses	Research Methodology	-	-
		Mini Projects/ Field Project (MP/FP)	-	-
		Project	1	10
		Internship	1	6+6NC
7	--	Bridge Courses	2	4NC
Total including Bridge and NC courses			64	171+20*
Total excluding Bridge and NC courses			61	160+20*

*20 credits are offered for B. Tech. Food Technology (Hons.)



NEP 2020



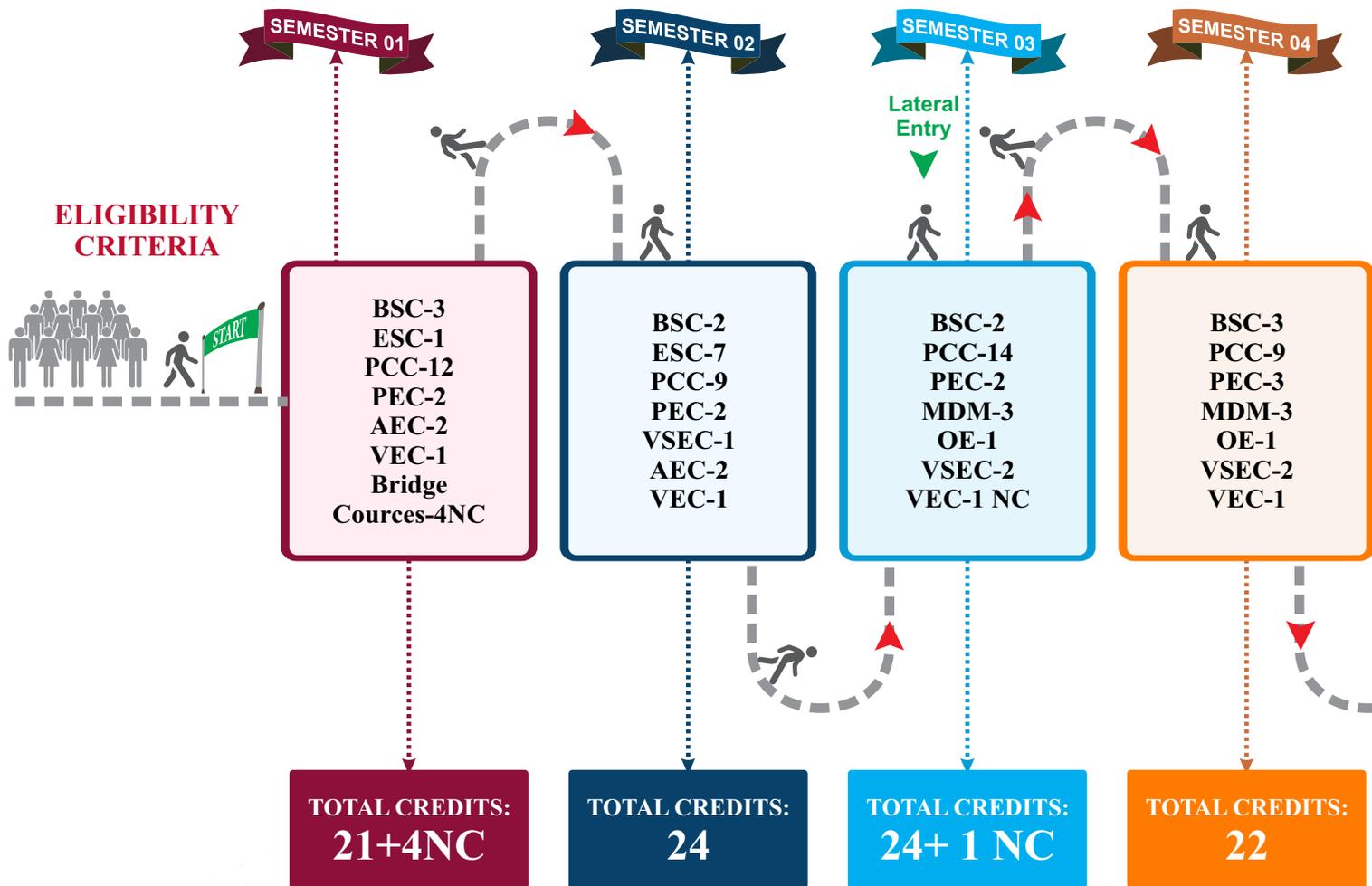
MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

● Semester wise credit distribution

Category / Type of Courses		Semester wise Credits								Course wise Total Credits
		I	II	III	IV	V	VI	VII	VIII	
BSC/ESC	Basic Science Courses (BSC)	3	2	2	3	-	-	-	-	10
	Engineering Science Courses (ESC)	1	7	-	-	-	-	-	-	8
Program Courses	Programme Core Course (PCC)	12	9	14	9	12	6	-	2+20*	64+20*
	Programme Elective Course (PEC)	2	2	2	3	3	6	-	-	18
Multidisciplinary Courses	Multidisciplinary Minor (MDM)	-	-	3	3	3	3	-	2	14
	Open /Generic Electives (OE/GE) (other than a particular Program)	-	-	1	1	3	3	-	-	8
Skill Courses	Vocational and Skill Enhancement Courses (VSEC)	-	1	2	2	-	3	-	-	8
MD Holistic Development Courses- Humanities, Social Science and Management (HSSM)+ Liberal Learning (LL)	Ability Enhancement courses (AEC)	2	2	-	-	2	2	-	-	8
	Indian Knowledge System (IKS)	-	-	-	-	-	1	-	-	1
	Value Education/Value Addition/Professional Ethics/Life skills Courses (VEC/VAC/EVLSC)	1	1	1NC	1	2	-	-	-	5+1NC
	Co-curricular Courses (CC)	-	-	-	-	-	-	-	-	-
	Entrepreneurship/Economics/Management Courses	-	-	-	-	-	-	-	-	-
Experiential Learning Courses	Research Methodology	-	-	-	-	-	-	-	-	-
	Mini Projects/ Field Project (MP/FP)	-	-	-	-	-	-	-	-	-
	Project	-	-	-	-	-	-	-	10	10
	Internship	-	-	-	-	-	-	6+6NC	-	6+6NC
Bridge Courses	Bridge Courses	4NC	-	-	-	-	-	-	-	4NC
Total Credits (Semester/Programme) including Bridge and NC courses		21+4NC	24	24+1NC	22	25	24	6+6NC	14+20*	160+7NC+4NC+20*
Total Credits (Semester/Programme) excluding Bridge and NC courses		21	24	24	22	25	24	6	14+20*	160+20*
Credits on completion of a year		45		46		49		20+20*		-
Cumulative credits		45		91		140		160+20*		-

*20 credits are offered for B. Tech. Food Technology (Hons.)

MAJOR PROGRAMME COURSES -TOTAL CREDITS	124+6NC+20*
MULTIDISCIPLINARY COURSES-TOTAL CREDITS	22
HOLISTIC DEVELOPMENT COURSES INCL LL+HSSM-TOTAL CREDITS	14+1NC



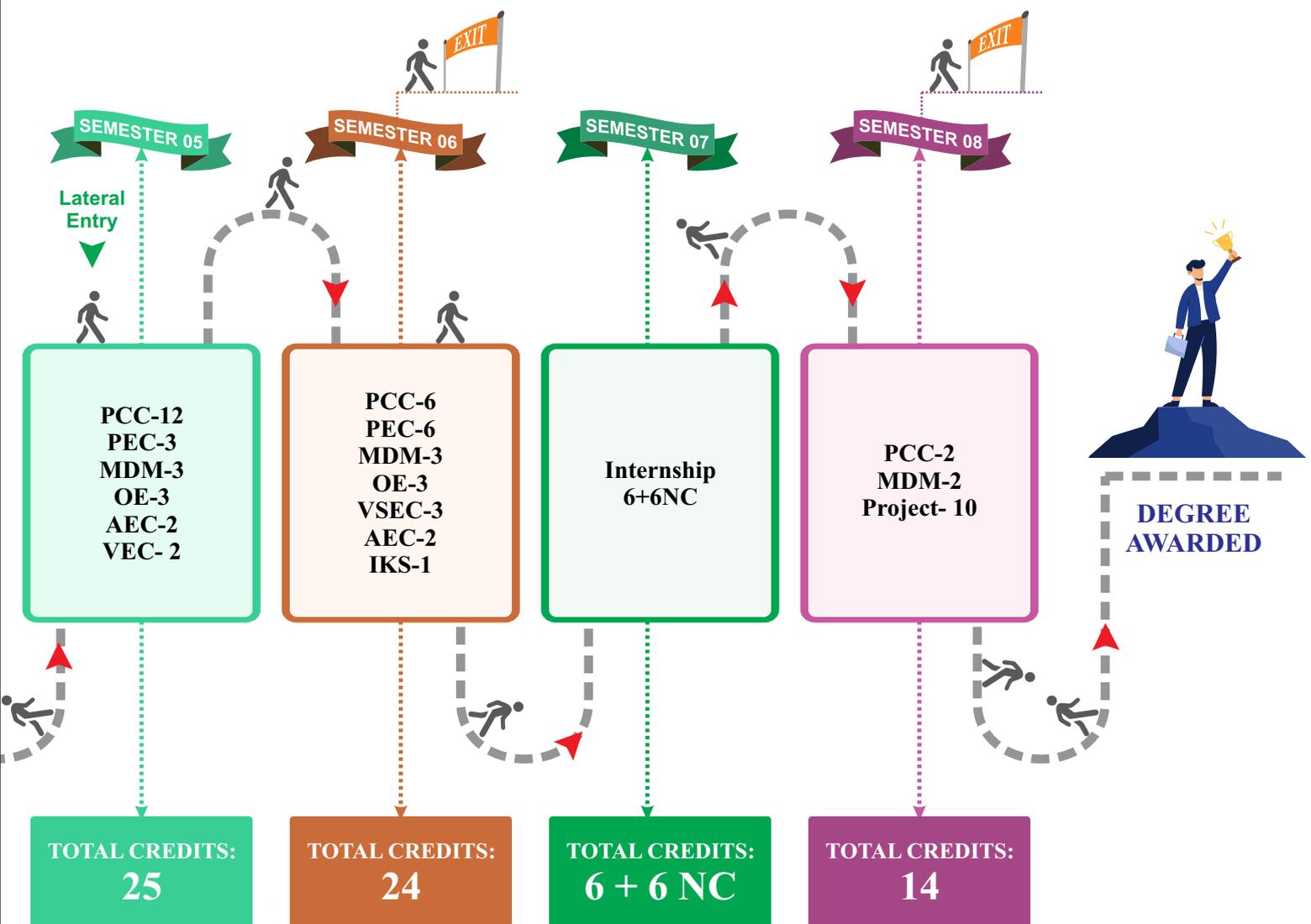
Legends

- Basic Science Courses - BSC
- Engineering Science Courses - ESC

- Programme Core Course - PCC
- Programme Elective Courses - PEC
- Programme Specialization Courses - PSC

- Multidisciplinary Minor - MDM

- Open Elective - OE
- Generic Elective - GE



Note : Lateral Entry & Exit as per Institute Policy

▪ Skill Enchantment Courses - SEC

- Vocational and Skill Enhancement Courses – VEC/ SEC
- Ability Enhancement Courses - AEC
- Indian Knowledge System - IKS
- Value Education Courses – VEC

▪ Experiential Learning Courses - EXPL



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

● Provision of multiple entry – exit with desired set of skills

Sem	BSC/ESC		Program Courses		Multidisciplinary Courses		Skill Courses	MD Holistic Development Courses- Humanities, Social Science & Management (HSSM) + Liberal Learning (LL)				Experiential Learning Courses		Bridge Courses* (NC)	Credits
	Basic Science Courses	Engineering Science Courses	Programme Core Courses (PCC)	Programme Elective Courses (PEC)	Multidisciplinary Minor (MDM)	Open / Generic Electives (OE/GE) (other than a particular Program)	Vocational and Skill Enhancement Courses (VSEC)	Ability Enhancement Courses	Indian Knowledge System (IKS)	Value Education/ Value Addition/ Professional Ethics/ Life skills Courses (VEC/VAC/EVLS)	Entrepreneurship/ Economics/ Management Courses	Project	Internship		
I	3	1	12	2	-	-	-	2	-	1	-	-	-	4 NC	21+4NC
II	2	7	9	2	-	-	1	2	-	1	-	-	-	-	24
NO EXIT ONLY LATERAL ENTRY															
III	2	-	14	2	3	1	2	-	-	1NC	-	-	-	-	24+1NC
IV	3	-	9	3	3	1	2	-	-	1	-	-	-	-	22
NO EXIT ONLY LATERAL ENTRY															
V	-	-	12	3	3	3	-	2	-	2	-	-	-	-	25
VI	-	-	6	6	3	3	3	2	1	-	-	-	-	-	24
EXIT (Bachelor Degree/Appropriate Level in Food Technology) (140) For exit summer internship for two months is essential skill development component															
B. Tech. (Food Technology) (160 credits)															
VII	Internship	-	-	-	-	-	-	-	-	-	-	6+6NC	-	-	6+6NC
VIII	Hands on Training	-	2	-	-	-	-	-	-	-	2	-	10	-	14
B. Tech. Food Technology (Hons.):180 credits A) Food Processing B) Food Safety and Quality Management															
A) Food Processing								B) Food Safety and Quality Management							
Course Name		Credits				Course Name		Credits							
Advanced Food Processing Techniques (Block Teaching)		6(4+0+2)				Advances in Food Chemistry & Nutrition (Block Teaching)		6(4+0+2)				20			
Nutraceuticals and Health Foods (Block Teaching)		6(4+0+2)				Advances in Food Safety and Security (Block Teaching)		6(4+0+2)							
Flavour Technology and Sensory Science		4(2+0+2)				Advance Techniques in Food Analysis		4(2+0+2)							
Advances in Beverage Technology		4(2+0+2)				Food Quality Assurance		4(2+0+2)							



NEP 2020



MIT-ADT
UNIVERSITY
 PUNE, INDIA
 A Leap towards World Class Education

Bridge Courses for Lateral Entry

Bridge	Year	Course category	Course Title
Entry Bridge	II Year (Semester III)	1. Skill Development Professional Course (SHD)	English Communication and Holistic Personality Programme
			Health Practices
		2. SCIL (During III Sem break)	Professional Skills
	III Year (Semester V)	1. Skill Development Professional Course (SHD)	Societal Immersion, Spirituality & Morality/ Professional Ethics & Human & Constitutional Values
			Creative Arts and Performing Arts
			Indian Knowledge System Course
		2. SCIL (During V Sem. break)	Professional Skills
3. Technical Course	Bridge Course		

Bridge Courses for Exit

Entry/Exit	Year	Course category	Course Title
Exit Bridge	III Year (After VI Sem.)	1. Technical Training	Internal auditor/Sensory evaluation/FoSTaC
		2. SCIL	Value Added Program (Employability Enhancement Training): 3 Weeks training
	IV (During B. Tech. VIII Sem.)	1. Technical Training	Internal auditor/Sensory evaluation/FoSTaC
		2. SCIL	Value Added Program (Employability Enhancement Training): 3 Weeks training

- Note:**
- Credit equivalence committee will suggest bridge courses to compensate the deficiency and cope up with the next level of B. Tech. (Food Technology) degree program.
 - Bridge courses needs to complete during semester break after 4th Sem. and 6th Sem. during vacation time periods.



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

Syllabus Structure

Semester - I

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT1001	Principles of Food Processing	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
2	Programme Core Course (PCC)	23FT1002	Post-Harvest Managements of Fruit and Vegetable	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
3	Programme Core Course (PCC)	23FT1003	Basics in Food Chemistry	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
4	Programme Core Course (PCC)	23FT1004	Fundamentals of Microbiology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
5	Programme Elective Course (PEC)	23FT1005	Basics of Food Engineering	2 (2+0+0)	2	0	0	40(L)	60(L)	100
		23FT1006	Nutrition and Food							
		23FT1007	Essentials of Food Safety and Regulations							
6	Engineering Science Course (ESC)	23FT1008	Engineering Drawing	1 (0+0+1)	0	0	2	40(P)	60(P)	100
7	Basic Science Course (BSC)	23FT1009	Mathematics- I	3 (2+1+0)	2	1	0	40(L) + 10(T)	60(L) + 40(T)	150
			Total	18	12	1	10	330	620	950
8	Ability Enhancement course (AEC)	23SHD2001	English Communication and Holistic Personality-1	2 (1+0+1)	1	0	2	60	40	100
9	Value Addition Course (VAC)	23SHD1005	Health Practices-1	1 (0+0+1)	0	0	2	60	40	100
			Grand Total	21	13	1	14	450	700	1150
10	Bridge Course	23FT0010	Bridge Course- Mathematics	2 (2+0+0) (NC)	2	0	0	40(L)	60(L)	100
11	Bridge Course	23FT0011	Bridge Course- Biology	2 (2+0+0) (NC)	2	0	0	40(L)	60(L)	100
			Grand Total including Bridge courses	21+4NC	17	1	14	530	820	1350



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

Semester - II

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT2012	Food Microbiology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
2	Programme Core Course (PCC)	23FT2013	Cereal Processing and Technology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
3	Programme Core Course (PCC)	23FT2014	Legume and Oilseed Technology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
4	Programme Elective Course (PEC)	23FT2015	Applied Food Chemistry	2 (1+0+1)	1	0	2	40(L) + 10(P)	60(L) + 40(P)	150
		23FT2016	Human Nutrition							
		23FT2017	Food Biochemistry							
5	Engineering Science Course (ESC)	23FT2018	Fluid Mechanics and Hydraulics	2 (1+0+1)	1	0	2	40(L) + 10(P)	60(L) + 40(P)	150
6	Engineering Science Course (ESC)	23FT2019	Fundamentals of Heat and Mass Transfer	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
7	Engineering Science Course (ESC)	23FT1020	Basics in Computer Application	2 (0+0+2)	0	0	4	40(P)	60(P)	100
8	Basic Science Course (BSC)	23FT1021	Mathematics-II	2 (2+0+0)	2	0	0	40(L)	60(L)	100
9	Vocational and Skill Enhancement Course (VSEC)	23FT1022	Design Thinking	1 (0+0+1)	0	0	2	40(P)	60(P)	100
			Total	21	12	0	18	420	780	1200
10	Ability Enhancement course (AEC)	23SHD200 2	English Communication and Holistic Personality-2	2 (1+0+1)	1	0	2	60	40	100
11	Value Addition Course (VAC)	23SHD100 6	Health Practices-2	1 (0+0+1)	0	0	2	60	40	100
			Grand Total	24	13	0	22	540	860	1400



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

Semester - III

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT2023	Meat Poultry and Fish Technology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
2	Programme Core Course (PCC)	23FT2024	Food Packaging Technology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
3	Programme Core Course (PCC)	23FT2025	Food Processing Equipment and Design-I	3 (2+0+1)	2	0	2	40(L) +10(P)	60(L)+ 40(P)	150
4	Programme Core Course (PCC)	23FT2026	Bakery and Confectionery Technology	5 (3+0+2)	3	0	4	40(L) + 10(P)	60(L) + 40(P)	150
5	Programme Elective Course (PEC)	23FT2027	Industrial Food Hygiene and Sanitation	2 (1+0+1)	1	0	2	40(L) + 10(P)	60(L) + 40(P)	150
		23FT2028	Food Additives							
		23FT2029	Fermentation Technology							
6	Basic Science Course (BSC)	23FT2030	Mathematics-III	2 (2+0+0)	2	0	0	40(L)	60(L)	100
7	Vocational and Skill Enhancement Courses (VSEC)	23FT2031	Dairy Product Processing	2 (0+0+2)	0	0	4	40(P)	60(P)	100
			Total	20	12	0	16	330	620	950
8	Multidisciplinary Minor (MDM)	-	Multidisciplinary Minor-1	3 or 4	-	-	-	-	-	-
9	Open /Generic Electives (OE/GE)	-	Open Elective-1 (Creative and Performing Arts-1)	1 (0+0+1)	0	0	2	60	40	100
			Grand Total	24 or 25						
10	Value Education Course (VEC)	23SHD1007	Societal Immersion, Spirituality & Morality-1	NC	0	0	2	-	-	-
			Grand Total including NC	25 or 26						



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

Semester - IV

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT3032	Food Safety and Quality Control	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
2	Programme Core Course (PCC)	23FT3033	Food Processing Equipment and Design –II	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
3	Programme Core Course (PCC)	23FT3034	Technology of Traditional Foods	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
4	Programme Elective Course (PEC)	23FT3035	Food Laws and Regulations	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
		23FT3036	Food Trade Management							
		23FT3037	Food Quality Assurance and Certification							
5	Basic Science Courses (BSC)	23FT3038	Environmental Studies	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
6	Vocational and Skill Enhancement Courses (VSEC)	23FT3039	Fruit and Vegetable Processing	2 (0+0+2)	0	0	4	40(P)	60(P)	100
			Total	17	10	0	14	290	560	850
7	Multidisciplinary Minor (MDM)	-	Multidisciplinary Minor-2	3 or 4	-	-	-	-	-	-
8	Open /Generic Electives (OE/GE)	-	Open Elective-2 (Creative and Performing Arts-2)	1 (0+0+1)	0	0	2	60	40	100
10	Value Education/Value Addition/Professional Ethics/Life skills Courses (VEC/VAC/EVLSC)	-	Professional Skills Training	1 (0+0+1)	0	0	2	60	40	100
			Grand Total	22 or 23						



NEP 2020



MIT-ADT
UNIVERSITY
 PUNE, INDIA
 A leap towards World Class Education

Semester - V

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT3040	Spice Technology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
2	Programme Core Course (PCC)	23FT3041	Techniques in Food Analysis	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
3	Programme Core Course (PCC)	23FT3042	Refrigeration Engineering	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
4	Programme Core Course (PCC)	23FT3043	Food Biotechnology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
5	Programme Elective Course (PEC)	23FT3044	Biochemical Engineering for Food Processing	3 (2+0+1)	2	0	2	40(L) + +10(P)	60 (L)+ +40(P)	150
		23FT3045	Beverage Technology							
		23FT3046	Co-operation, Marketing and Finance							
			Total	15	10	0	10	250	500	750
6	Multidisciplinary Minor (MDM)	-	Multidisciplinary Minor-3	3 or 4	-	-	-	-	-	-
7	Open /Generic Electives (OE/GE)	-	Open Elective-3	3	-	-	-	-	-	-
8	Ability Enhancement Course (AEC)	-	Foreign and Indian Languages-1	2 (2+0+0)	2	0	0	60	40	100
		23SHD1049	French-1							
		23SHD1051	German-1							
		23SHD1053	Japanese-1							
		23SHD1055	Spanish-1							
		-	Sanskrit-1							
		-	Hindi-1							
-	Marathi-1									
9	Value Education/Value Addition/ Professional Ethics/Life skills Courses (VEC/VAC/EVLS C)	-	Professional Skills Training	2 (1+0+1)	1	0	2	60	40	100
			Grand Total	25						



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

Semester - VI

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT3047	Food Processing Plant Design and Layout	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
2	Programme Core Course (PCC)	23FT3048	Food Product Development	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
3	Programme Elective Course (PEC)	23FT3049	By-product and Waste Utilization	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
		23FT3050	Food Toxicants and Allergens							
		23FT3051	Speciality Food Processing Technology							
4	Programme Elective Course (PEC)	23FT3052	Food Fungi and Yeast Technology	3 (2+0+1)	2	0	2	40(L) + 10(P)	60(L) + 40(P)	150
		23FT3053	Food Extrusion Technology							
		23FT3054	Instrumentation and process control							
5	Vocational and Skill Enhancement Course (VSEC)	23FT3055	Entrepreneurship Development	2 (0+0+2)	0	0	4	40(P)	60(P)	100
6	Vocational and Skill Enhancement Course (VSEC)	-	Aptitude and Skills Training	1 (0+0+1)	0	0	2	60	40	100
			Total	15	8	0	14	300	500	800
7	Multidisciplinary Minor (MDM)	-	Multidisciplinary Minor-4	3 or 2	-	-	-	-	-	-
8	Open /Generic Elective (OE/GE)	-	Open Elective-4	3	-	-	-	-	-	-
9	Ability Enhancement Course (AEC)	-	Foreign and Indian Languages-2	2 (2+0+0)	2	0	0	60	40	100
		23SHD2050	French -2							
		23SHD2052	German -2							
		23SHD2054	Japanese -2							
		23SHD2056	Spanish -2							
		-	Sanskrit-1							
		-	Hindi-1							
-	Marathi-1									
10	Indian Knowledge System (IKS)	-	Indian Knowledge System	1	-	-	-	-	-	-
			Grand Total	24 or 23						



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education

Semester - VII

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Internship	23FT4056	Food Industry Internship	12 (6+6NC)	0	0	24	320	480	800
			Total	12 (6+6NC)	0	0	24	320	480	800

Note: Accountability of credit load (12 credits) of Food Industry Internship (VII Sem.) justifies assessment of 6 credits (Admissible for CGPA) by Institution and of 6 credits (Non admissible to CGPA) by joint venture in -coordination with Food Industry authority as satisfactory / non satisfactory.

Semester - VIII

Sr. No.	Type of Course	Course Code	Course Name	Credits	Hours / Week			Examination Scheme		
					Lecture	Tutorial	Practical	CA	FE	Total
1	Programme Core Course (PCC)	23FT4057	Food Business Management and Ethics	2 (2+0+0)	2	0	0	40(L)	60(L)	100
2	Project	23FT4058	Hands on Training	10	0	0	20	200	300	500
3	Multidisciplinary Minor (MDM)	-	Multidisciplinary Minor-5	2	-	-	-	-	-	-
			Total	14						

B. Tech. Food Technology (Hons.): Additional 20 credits

A) Food Processing

4	A) Food Processing	23FT4059	Advanced Food Processing Techniques (Block Teaching)	6 (4+0+2)	4	0	4	40(L)+ 10(P)	60(L) + 40(P)	150
5		23FT4060	Nutraceuticals and Health Foods (Block Teaching)	6 (4+0+2)	4	0	4	40(L)+ 10(P)	60(L) + 40(P)	150
6		23FT4061	Flavour Technology and Sensory Science	4 (2+0+2)	2	0	4	40(L)+ 10(P)	60(L) + 40(P)	150
7		23FT4062	Advances in Beverage Technology	4 (2+0+2)	2	0	4	40(L)+ 10(P)	60(L) + 40(P)	150

B. Tech. Food Technology (Hons.): Additional 20 credits

B) Food Safety and Quality Management

4	B) Food Safety and Quality Management	23FT4063	Advances in Food Chemistry & Nutrition (Block Teaching)	6 (4+0+2)	4	0	4	40(L)+ 10(P)	60(L) + 40(P)	150
5		23FT4064	Advances in Food Safety and Security (Block Teaching)	6 (4+0+2)	4	0	4	40(L)+ 10(P)	60(L) + 40(P)	150
6		23FT4065	Advance Techniques in Food Analysis	4 (2+0+2)	2	0	4	40(L)+ 10(P)	60(L) + 40(P)	150
7		23FT4066	Food Quality Assurance	4 (2+0+2)	2	0	4	40(L)+ 10(P)	60(L) + 40(P)	150



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

Basic Sciences & Engineering Sciences Courses

Sr. No.	Course Title	No. of Credits	Name of the Department -Institute/School	Semester in which Course is offered
1	Engineering Drawing	1	FPPE-SFT	I
2	Mathematics-I	3	ESFT-SFT	I
3	Fluid Mechanics and Hydraulics	2	FPPE-SFT	II
4	Fundamentals of Heat and Mass Transfer	3	FPPE-SFT	II
5	Basics in Computer Application	2	FPPE-SFT	II
6	Mathematics-II	2	ESFT-SFT	II
7	Mathematics-III	2	ESFT-SFT	III
8	Environmental Studies	3	ESFT-SFT	IV



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

Programme Core Courses

Sr. No.	Course Title	No. of Credits	Semester in which Course is offered
1	Principles of Food Processing	3	I
2	Post-Harvest Managements of Fruit and Vegetable	3	I
3	Basics in Food Chemistry	3	I
4	Fundamentals of Microbiology	3	I
5	Food Microbiology	3	II
6	Cereal Processing and Technology	3	II
7	Legume and Oilseed Technology	3	II
8	Meat Poultry and Fish Technology	3	III
9	Food Packaging Technology	3	III
10	Food Processing Equipment and Design -I	3	III
11	Bakery and Confectionery Technology	5	III
12	Food Safety and Quality Control	3	IV
13	Food Processing Equipment and Design –II	3	IV
14	Technology of Traditional Foods	3	IV
15	Spice Technology	3	V
16	Techniques in Food Analysis	3	V
17	Refrigeration Engineering	3	V
18	Food Biotechnology	3	V
19	Food Processing Plant Design and Layout	3	VI
20	Food Product Development	3	VI
21	Food Business Management and Ethics	2	VIII
22*	Advanced Food Processing Techniques (Block Teaching)	6	VIII
23*	Nutraceuticals and Health Foods (Block Teaching)	6	VIII
24*	Flavour Technology and Sensory Science	4	VIII
25*	Advances in Beverage Technology	4	VIII
26**	Advances in Food Chemistry & Nutrition (Block Teaching)	6	VIII
27**	Advances in Food Safety and Security (Block Teaching)	6	VIII
28**	Advance Techniques in Food Analysis	4	VIII
29**	Food Quality Assurance	4	VIII

*Sr. No. 22 to 25 are offered for B. Tech. Food Technology (Hons.) in Food Processing

**Sr. No. 26 to 29 are offered for B. Tech. Food Technology (Hons.) in Food Safety and Quality Management



NEP 2020



MIT-ADT
UNIVERSITY
 PUNE, INDIA
 A leap towards World Class Education

Programme Elective Courses

Sr. No.	Elective Basket No.	Course Title	No. of Credits	Programme/ Specialization Title	Semester in which Course is offered
1	Elective course-1	Basics of Food Engineering	2	Food Technology	I
		Nutrition and Food	2		
		Essentials of Food Safety and Regulations	2		
2	Elective course-2	Applied Food Chemistry	2	Food Technology	II
		Human Nutrition	2		
		Food Biochemistry	2		
3	Elective course-3	Industrial Food Hygiene and Sanitation	2	Food Technology	III
		Food Additives	2		
		Fermentation Technology	2		
4	Elective course-4	Food Laws and Regulations	3	Food Technology	IV
		Food Trade Management	3		
		Food Quality Assurance and Certification	3		
5	Elective course-5	Biochemical Engineering for Food Processing	3	Food Technology	V
		Beverage Technology	3		
		Co-operation, Marketing and Finance	3		
6	Elective course-6	By-product and Waste Utilization	3	Food Technology	VI
		Food Toxicants and Allergens	3		
		Speciality Food Processing Technology	3		
7	Elective course-7	Food Fungi and Yeast Technology	3	Food Technology	VI
		Food Extrusion Technology	3		
		Instrumentation and process control	3		



NEP 2020



MIT-ADT
UNIVERSITY
 PUNE, INDIA
 A Leap towards World Class Education

Open/Generic Electives

Sr. No.	Elective Basket No.	Course code	Course Title	No. of Credits	Name of the Department-Institute/School	Semester in which Course is offered
1	Open Elective-1	---	Creative and Performing Arts-1	1	SHD	III
		23SHD1025	Drawing & Painting-1			
		23SHD1027	Sculpture Clay Modelling-1			
		23SHD1029	Photography- 1			
		23SHD1037	Design Thinking-1			
		23SHD1041	Digital & Financial Literacy-1			
		23SHD1039	Sound Recording & Enhancement Technology-1			
		23SHD1031	Architectural Sensibility-1			
		23SHD1033	Literary Sensibility for Enhanced Personality-1			
		23SHD1035	Intercultural Appreciation and Exchange-1			
		23SHD1009	Indian Classical Music (Vocal)-1			
		23SHD1011	Light Classical & Popular Music (Vocal)-1			
		23SHD1015	Classical Dance- Kathak-1			
		23SHD1045	Event Management-1			
		23SHD1017	Folk Dance-1			
		23SHD1019	Instrumental Music- Harmonium / Key-board-1			
		23SHD1021	Instrumental Music – Tabla-1			
23SHD1023	Instrumental Music – Guitar-1					
23SHD1013	Drama-1					
	Digital & Financial Literacy-1					
	23SHD1047	Digital Film making and Appreciation-1				
2	Open Elective-2	---	Creative and Performing Arts-2	1	SHD	IV
		23SHD1026	Drawing & Painting-2			
		23SHD1028	Sculpture Clay Modelling-2			
		23SHD1030	Photography- 2			



NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

		23SHD1038	Design Thinking-2			
		23SHD1042	Digital & Financial Literacy-2			
		23SHD1040	Sound Recording & Enhancement Technology-2			
		23SHD1032	Architectural Sensibility-2			
		23SHD1034	Literary Sensibility for Enhanced Personality-2			
		23SHD1036	Intercultural Appreciation and Exchange-2			
		23SHD1010	Indian Classical Music (Vocal)-2			
		23SHD1012	Light Classical & Popular Music (Vocal)-2			
		23SHD1016	Classical Dance- Kathak-2			
		23SHD1046	Event Management-2			
		23SHD1018	Folk Dance-2			
		23SHD1020	Instrumental Music- Harmonium / Key-board-2			
		23SHD1022	Instrumental Music – Tabla-2			
		23SHD1024	Instrumental Music – Guitar-2			
		23SHD1014	Drama-2			
			Digital & Financial Literacy-2			
		23SHD1048	Digital Film making and Appreciation-2			
3	Open Elective-3		Fundamentals of Data Science (DS)	3	IT-SOC	V
			Introduction to Artificial Intelligence (AIA)	3	CSE-SOC	V
			Export Potential for Agri & Food Products (M)	3	COM	V
4	Open Elective-4		Bioprocess Engineering	3	SBSR	VI
			Data Modelling and Visualization (DS)	3	IT-SOC	VI
			Introduction to Machine Learning (AIA)	3	CSE-SOC	VI



NEP 2020



MIT-ADT
UNIVERSITY
 PUNE, INDIA
 A leap towards World Class Education

Multidisciplinary Minors (MDM)

Sr. No.	Minor Title	Course Name	Credits	Semester in which Course is offered	Name of the Department-Institute/School
1	Management	Management Principles & Organizational Behavior	4	III	COM
		Production & Operation Management	4	IV	
		Export Potential for Agri & Food Products	4	V	
		Seminar & Report Writing	2	VI	
2	Data Science	Fundamentals of Data Science	3	III	IT-SOC
		Data Modelling and Visualization	3	IV	
		Data Mining and Warehousing	3	V	
		Big Data Analytics	3	VI	
		Capstone Project	2	VIII	
3	Artificial Intelligence and Analytics	Introduction to Artificial intelligence	3	III	CSE-SOC
		Introduction to Data Science	3	IV	
		Introduction to Machine Learning	3	V	
		Data Visualization using Tableau	3	VI	
		Capstone Project	2	VIII	
4	Bioengineering	Microbial Engineering	3	III	SBSR
		Downstream Processing	3	IV	
		Fundamentals of Biochemical Engineering	3	V	
		Instrumentation and Control	3	VI	
		Product Quality Systems	2	VII	
5	Digital Arts	Photoshop, Illustrator, Adobe After Effects, Blender, Maya, Unity	3	III	SoFA
			3	IV	
			3	V	
			3	VI	
			2	VIII	



NEP 2020



MIT-ADT
UNIVERSITY
 PUNE, INDIA
 A Leap towards World Class Education

Vocational and Skill Enhancement Courses

Sr. No.	Course Title	No. of Credits	Type of courses	Name of the Department - Institute/School	Semester in which Course is offered
1	Design Thinking	1	VSEC	ESFT - SoFT	II
2	Dairy Product Processing	2	VSEC	APO - SoFT	III
3	Fruit and Vegetable Processing	2	VSEC	FPPT - SoFT	IV
4	Entrepreneurship Development	2	VSEC	FBMED - SoFT	VI
5	Aptitude and Skills Training	1	VSEC	SCIL	VI

Multidisciplinary Holistic Development Courses - Humanities, Social Sciences, Management and Liberal Learning

Sr. No.	Course Title	No. of Credits	Type of courses	Name of the Department /Institute/School	Semester in which Course is offered
1	English Communication and Holistic Personality Programme-1	2	AEC	SHD	I
2	Health Practices-1	1	VAC	SHD	I
3	English Communication and Holistic Personality Programme-2	2	AEC	SHD	II
4	Health Practices-2	1	VAC	SHD	II
5	Professional Skills Training	1	VAC	SCIL	IV
6	Foreign Languages-1/ Indian Languages-1	2	AEC	SHD	V
7	Societal Immersion, Spirituality & Morality	NC	VEC	SHD	III
8	Professional Skills Training	2	VAC	SCIL	V
9	Foreign Languages-2/ Indian Languages-2	2	AEC	SHD	VI
10	Indian Knowledge System	1	IKS	SHD	VI



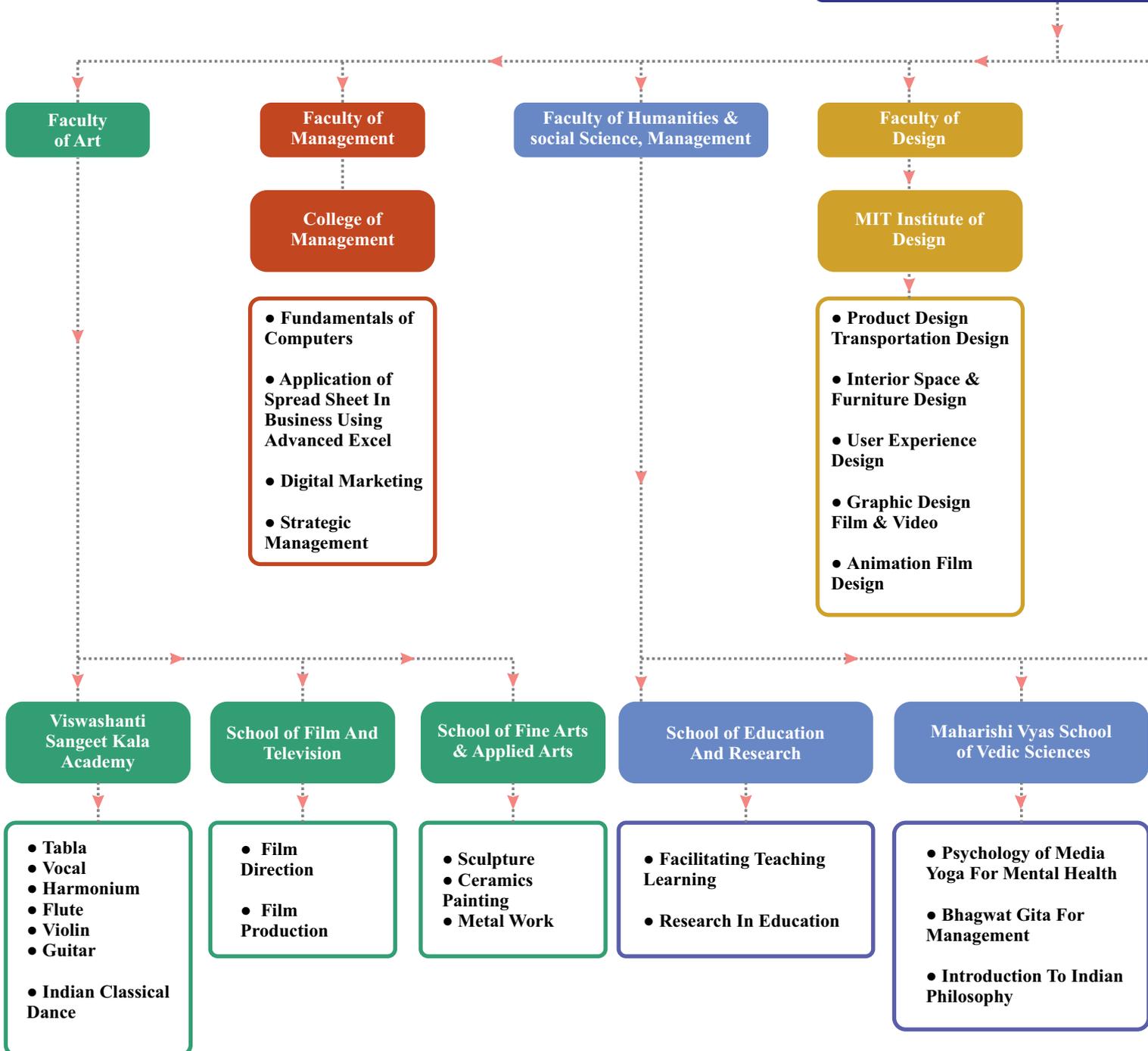
NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education



MULTIDISCIPLINARY





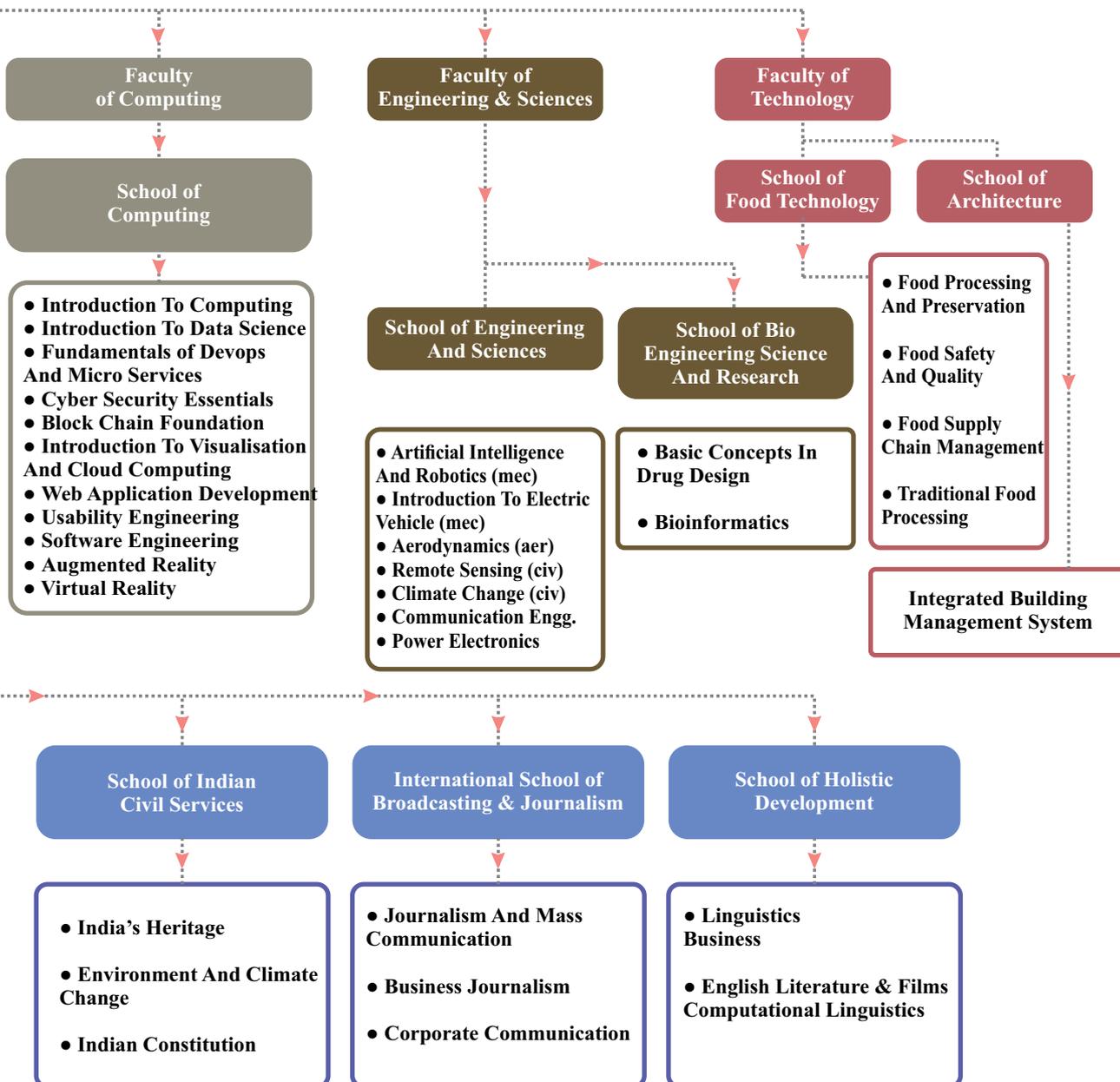
NEP 2020



MIT-ADT
UNIVERSITY
PUNE, INDIA
A Leap towards World Class Education



MINOR





**AIC-MIT ADT
INCUBATOR FORUM**
Atal Incubation Centre

**The University for
Entrepreneurship**



**SCHOOL OF
HOLISTIC
DEVELOPMENT**

**The University for
Holistic Development**



**School of
CORPORATE
INNOVATION &
LEADERSHIP**

**The University for
Corporate Leadership**



Centre for Research & Innovation for Young Aspirants

**The University for
Research and Innovation**



MIT School of Food Technology

Vishwarajbaug, Loni Kalbhor, Maharashtra 412201



[/mitadtuniversity](#)

For more Details

