Programmes of Engineering and Technology Management offered under this School

Master of Business Administration (Technology)
(Dual Degree B.Tech. and MBA)

- Information Technology
- Telecommunication
- Chemical
- Manufacturing / Mechanical
- Computer
- Civil

Bachelor of Technology (B.Tech.)

- Information Technology
- Computer Engineering
- Electronics Engineering
- Electronics & Telecommunication Engineering
- Mechanical Engineering
- Civil Engineering

Master of Computer Applications (MCA)

Master of Technology (M.Tech.)

- Information Technology
- Computer Engineering
- Electronics Engineering
- Electronics & Telecommunication Engineering

Ph. D.

- Information Technology
- Computer Engineering
- Electronics Engineering
- Electronics & Telecommunication Engineering
- Other Engineering Sciences
- Technology Management

The details about the Mumbai and Shirpur campuses and programmes are given in the following pages.

MBA (Tech.)
Master of Business Administration (Technology)
Dual Degree: B.Tech.+MBA

PROGRAMME DURATION
The course of study for the Master of Business Administration in Technology, MBA-Tech. shall extend over five years consisting of fifteen trimesters.

SPECIALIZATIONS OFFERED AND INTAKE
Six technology areas are being offered at Mumbai as well as Shirpur campuses.

Areas	Mumbai (No.of Seats)	Shirpur (No.of Seats)
Information Technology	40	30
Telecommunication	40	30
Chemical	20	-
Manufacturing/Mechanical	40	30
Computer	-	30
Civil	20	30

CAREER OPPORTUNITIES
MBA(Tech.) Programme delivers state-of -the- art management and technology knowledge and skills to the students. These tachno-savvy managers are fully equipped to create optimum and holistic solutions in business organizations. This has been amply substantiated by the feedback received by NMIMS from various organizations where MBA(Tech.) students happen to be working.

UNIQUE FEATURES OF THE PROGRAMME
- The programme involves two internships in the organizations for a total duration of about 10 months. Thus students get long enough exposure to the real working conditions and are able to contribute to the organizations literally right from day one of joining.

- The course curriculum is reviewed and updated on a regular basis to ensure that its relevance to the organizations is sustained.

ELIGIBILITY
The candidate must have passed 10+2 or equivalent, (including International IB Diploma, Cambridge) Exam with Science or Science Vocational (with PCM and English as subjects) with minimum 50% marks in PCM (Minimum 150 marks out of 300). Those awaiting their 10+2 exam results this year may also apply.

SELECTION PROCESS
Students are admitted to the MBA-Tech. Programme if they meet the required standards of the three-stage process described below:

Stage 1: All candidates aspiring to and eligible for admission to the MBA-Tech. programme will be required to appear for written test to be conducted at various locations in India. The venue will be announced well before the test date.

Stage 2: Based on the performance in the written test, candidates will be short-listed and called for a personal interview at NMIMS Campus, Mumbai.

Stage 3: Based on the performance in Stage 1 and Stage 2 and on the candidates' 12th standard PCM marks, a composite merit list will be drawn as per the criteria laid down by the school. Candidates will be called for a counseling session based on the above merit list. In the counseling session, candidates will be allotted admissions to various disciplines as per their choice and availability of discipline.

MBA (Tech.)
Information Technology

First Year (Common For All Branches: IT, Telecom, Chemical, Manufacturing / Mechanical, Computer & Civil)

Trimester I	Trimester II	Trimester III
Applied Science – I*	Applied Science – II*	Workshop Practice
Applied Mathematics – I	Applied Mathematics -II	Applied Mathematics - III
Basic Engineering Drawing	Material Science	Engineering Mechanics
Basic Electrical Engineering	Basic Electronics	Instrumentation Fundamentals
Computer Fundamentals	Computer Programming	Computer Applications & Numerical Techniques

*Consists of Applied Physics-I and Applied Chemistry-I

Second Year

Trimester IV	Trimester V	Trimester VI
Data Structure & Algorithms	Operating System	Telecom & Computer Network
Database Management System	Digital Signal Processing	Advance Computer Network
Digital Design & Micro Processor	Information Theory & Coding	Software Engineering - II
Communication System	Software Engineering - I	Computer Simulation & Modeling
Business Communication - I	Principles and Practices of Management	Statistical Methods

Third Year

Trimester VII	Trimester VIII	Trimester IX
Image Processing	Multimedia Systems & Communications	Technical Internship
Software Architecture	Distributed Computing	
Wireless Communication - I	System Architecture & Programming	
Operations Research	Project Management	
Business Economics	Information Systems for Managers	
Constitution of India	Environmental Management	

Fourth Year

Trimester X	Trimester XI	Trimester XII
Data Warehousing, Mining & Business Intelligence	Wireless Communication II	Information Security
Financial Analysis & Accounting	Software Testing	Strategic Management
Management of Innovations	Cost Accounting	Financial Management
Organizational Behaviour	Human Resource Management	Management of Technology
Marketing Management	Corporate Social Responsibility	Legal Aspects of Business
Research Methodology	Supply Chain Management	Industrial Marketing
Operations Management	Quality Management Systems & Practices	Intellectual Property Management
E-Business	Advanced Statistical Analysis	Enterprise Planning System
Term Paper	Business Communication – II	Business Communication– III
	Seminar Paper	Research Paper

Fifth Year

Summer	Trimester XIII	Trimester XIV	Trimester XV
Management Internship		Energy Management	Leadership in Organization
		Entrepreneurship Management	New Product Development
		Electives (5)	Electives (5)
		Seminar Paper	Research Paper
		Foreign Language	Personality and Creativity Development (Workshop)

CHOICES

1. Any four courses from Technology Management stream is compulsory
2. Four courses from any one of the streams (Finance, Marketing, Operations and HR & OB)
3. Remaining two courses from any stream
4. Two audit courses are also allowed subject to the offering of the courses
5. Minimum no. of students to offer a course = 15

Electives offered in XIV & XV Trimester

Marketing	***Operations***	***Technology Management***	***Finance***	***HR and OB***
Customer Relations Management	Operations Strategy	Management of Technology Acquisition & Transfer	Security & Portfolio	Corporate Governance
Brand Management	Simulation Modeling	Business Models in Digital Economy	Project & Infrastructure Finance	Human Resource Planning
Sales & Distribution Management	Operation Planning & Control	Knowledge Management	Management of Mergers and Acquisition	Management of Change
	Integrated Marketing Communication	Safety , Health Environment (SHE) System Management	Project Risk & Insurance Management	Management of International Business
Services Marketing	International Project Management	System Analysis & Design	Corporate Tax Planning	Systems Approach to Org. design.
Marketing of Technology Products	Services Operations Management	Technology Forecasting, Assessment & Evaluation.	Financial Institutions and Markets	Economics of Negotiation & Conflict Resolution
Retail Management	Supplier Management	BPR (Business Process Re-engineering.	Financial Engineering	Diversity, Innovation & Organisational Change.
Consumer Behaviour	Contracts & Claims Management	Business Analytics	Management Control System	Cross Cultural Management
International Marketing	Infrastructure Development		International Finance	
	International Sourcing		International Trade	
			WTO & Indian Business	
			Management of Commercial Banks	

MBA (Tech.)
Telecom

First Year (Common for All Branches)
Second Year

Trimester IV	Trimester V	Trimester VI
Analog Integrated Circuits	Microprocessors	Digital Communication
Database Management System	Digital Signal Processing	Telecom & Computer Network
Digital Design	Information Theory Coding	Optical Fiber Communication
Communication System	Software Engineering – I	Computer Simulation & Modelling
Business Communication - I	Principles and Practices of Management	Statistical Methods

Third Year

Trimester VII	Trimester VIII	Trimester IX
Electromagnetic Wave Theory	Multimedia Systems & Communication	Technical Internship
Micro Controller & Embedded Programming	Microwave Communication System	
Fundamentals of Microwave Engineering	Antenna & Wave Propagation	
Operations Research	Project Management	
Business Economics	Information Systems for Managers	
Constitution of India	Environmental Management	

Fourth Year

Trimester X	Trimester XI	Trimester XII
Wireless Communication Technology & Networking	Computer Communication Networks	Video Engineering & Telecommunication Environment
Financial Analysis & Accounting	Network Design & Planning	Strategic Management
Management of Innovations	Cost Accounting	Financial Management
Organizational Behaviour	Human Resource Management	Management of Technology
Marketing Management	Corporate Social Responsibility	Legal Aspects of Business
Research Methodology	Supply Chain Management	Industrial Marketing
Operations Management	Quality Management Systems & Practices	Intellectual Property Management
E-Business	Advanced Statistical Analysis	Enterprise Planning System
Term Paper	Business Communication – II	Business Communication- III
	Seminar Paper	Research Paper

Fifth Year (Common for All Branches)

MBA (Tech.)
Chemical

First Year (Common for All Branches)
Second Year

Trimester IV	Trimester V	Trimester VI
Strengths of Material	Chemical Engineering Thermodynamics – I	Process Equipment & Accessories Design
Fluid Mechanics	Heat Transfer Operations	Chemical Process – I
Process Calculations	Mass Transfer Operations - I	Mass Transfer Operations – II
Advanced Chemistry	Solid Fluid Mechanical Operations	Advance Computing & Application
Business Communication - I	Principles and Practices of Management	Statistical Methods

Third Year

Trimester VII	Trimester VIII	Trimester IX
Chemical Process – II	Chemical Reaction Engineering	Technical Internship
Reaction Kinetics	Instrumentation & Process Control	
Plant Utilities & Piping	Industrial Safety & Health	
Operations Research	Project Management	
Business Economics	Information Systems for Managers	
Constitution of India	Environmental Management	

Fourth Year

Trimester X	Trimester XI	Trimester XII
Environmental Engineering	Food Processing	CAD, Optimisation& Simulation
Financial Analysis & Accounting	Project & Process Engineering	Strategic Management
Management of Innovations	Cost Accounting	Financial Management
Organizational Behaviour	Human Resource Management	Management of Technology
Marketing Management	Corporate Social Responsibility	Legal Aspects of Business
Research Methodology	Supply Chain Management	Industrial Marketing
Operations Management	Quality Management Systems & Practices	Intellectual Property Management
E-Business	Advanced Statistical Analysis	Enterprise Planning System
Term Paper	Business Communication – II	Business Communication- III
	Seminar Paper	Research Paper

Fifth Year (Common for All Branches)

MBA (Tech.)
Manufacturing

First Year (Common for All Branches)
Second Year

Trimester IV	Trimester V	Trimester VI
Strength of Material	Engineering Design	Tool Engineering
Fluid Mechanics	Manufacturing Process - II	Manufacturing Process – III
Manufacturing Process – I	Machine Drawing	Metrology & Instrumentation
Theory of Machines	Work Study & Ergonomics	Manufacturing Management
Business Communication - I	Principles and Practices of Management	Statistical Methods

Third Year

Trimester VII	Trimester VIII	Trimester IX
Automation & Control Engineering	CAD/CAM & CIM	Technical Internship
Reliability Engineering	Value Engineering	
Process Engineering	Manufacturing System & Strategy	
Business Economics	Project Management	
Operations Research	Information Systems for Managers	
Constitution of India	Environmental Management	

Fourth Year

Trimester X	Trimester XI	Trimester XII
World Class Manufacturing	Product Design & Development	Maintenance Engineering & Management
Financial Analysis & Accounting	Production & Process Control Systems	Strategic Management
Management of Innovations	Cost Accounting	Financial Management
Organizational Behaviour	Human Resource Management	Management of Technology
Marketing Management	Corporate Social Responsibility	Legal Aspects of Business
Research Methodology	Supply Chain Management	Industrial Marketing
Operations Management	Quality Management Systems & Practices	Intellectual Property Management
E-Business	Advanced Statistical Analysis	Enterprise Planning System
Term Paper	Business Communication – II	Business Communication- III
	Seminar Paper	Research Paper

MBA (Tech.)
Computer

First Year (Common for All Branches)

Second Year

TRIMESTER IV	TRIMESTER V	TRIMESTER VI
Data Structure & Algorithms	Operating Systems	Web Engineering
Database Management System	Microprocessors	Telecom & Computer Networks
Digital Design & Computer Organization	Digital Signal Processing	Software Engineering - II
Communication Systems	Software Engineering – I	Computer Simulation & Modelling
Business Communication –I	Principles and Practices of Management	Statistical Methods

Third Year

TRIMESTER VII	TRIMESTER VIII	TRIMESTER IX
Image Processing*	Multimedia Systems & Communications*	
Computer Graphics	Distributed Computing*	
Wireless Communication–I*	System Architecture & Programming*	**Industrial Training**
Operations Research*	Project Management*	
Business Economics**	Information Systems for Managers**	

Fourth Year (Proposed)

Trimester X	Trimester XI	Trimester XII
Wireless Communication II	Data Warehousing & Mining	Information Security
Financial Analysis & Accounting	Parallel Computing	Strategic Management
Management of Innovations	Cost Accounting	Financial Management
Organizational Behaviour	Human Resource Management	Management of Technology
Marketing Management	Corporate Social Responsibility	Legal Aspects of Business
Research Methodology	Supply Chain Management	Industrial Marketing
Constitution of India*	Quality Management Systems & Practices	Intellectual Property Management
Environment Management *	Advanced Statistical Analysis	Enterprise Planning System
E-Business	Business Communication – II	Business Communication – III
Operations Management	Research Paper 1 & Presentation**	White Paper 2 & Presentation**
White Paper 1 & Presentation**		

Fifth Year (Common for All Branches)

MBA (Tech.)
Mechanical Engineering

First Year (Common for All Branches)

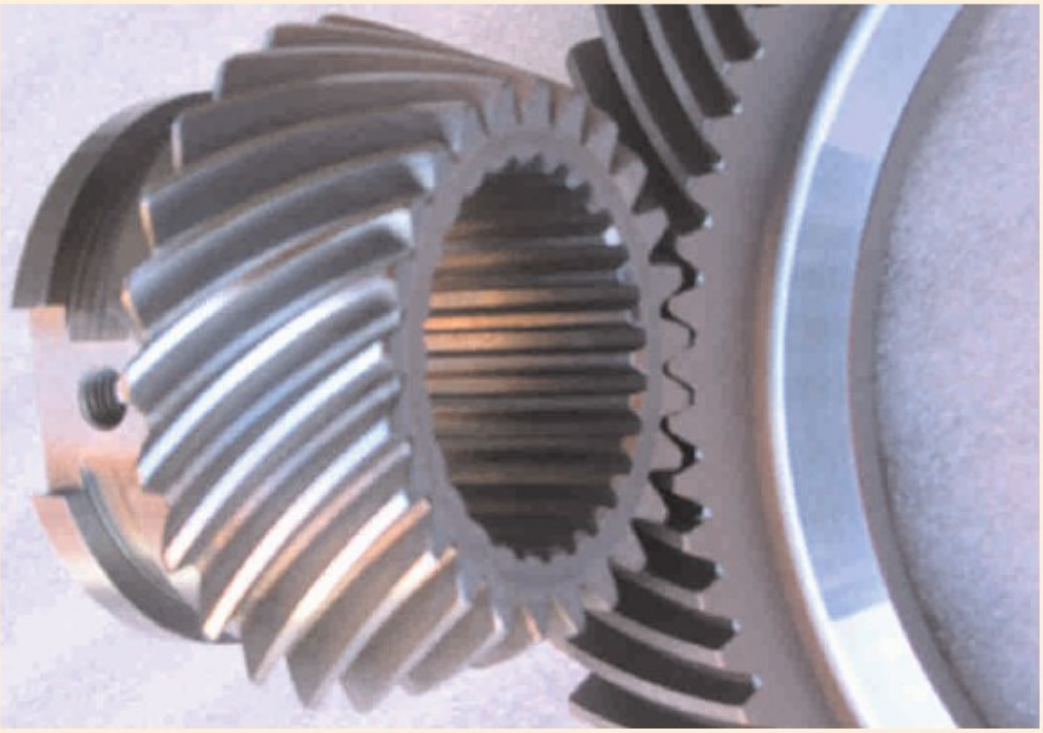
Second Year

Trimester IV	Trimester V	Trimester VI
Applied Thermodynamics	Thermal Engineering	Fluid Machinery
Fluid Mechanics	Machine Drawing	Theory of Machine II
Manufacturing Processes I	Theory of Machine I	Engineering Design
Strength of Material	Manufacturing Processes II	I.C. Engine
Business Communication I	Principles and Practices of Management	Statistical Methods

Third Year

Trimester VII	Trimester VIII	Trimester IX
Mechanical System Design	CAD/CAM& FEA	Technical Internship.
Operation Research	Refrigeration & Air Conditioning	
Heat &Mass Transfer	Mechatronics	
Vibration Engineering	Project Management	
Business Economics	Information System for Managers	

Fourth Year and Fifth Year structure will be similar to other MBA (Tech.) Programme with relevant subjets.



MBA (Tech.)
Civil

First Year (Common for All Branches)

Second Year

Trimester IV	Trimester V	Trimester VI
Materials of Construction	Strength of Materials-I	Strength of Materials-II
Civil Engg. Workshop Practice	Environment Engg. & Management	Water Resources & Mgt.
Numerical Techniques	Hydraulic Machinery	Soil Mechanics & Foundation Engg.
Fluid Mechanics	Computer Aided Drafting (Software)3D	Surveying
Business Communication-I	Statistical Methods	Principles & Practice of Mgt.

Third Year

Trimester VII	Trimester VIII	Trimester IX
Thermodynamics	Electrical Installations	Technical Internship
Analysis of Structure	Safety In Construction	
Introduction to Finite Element Method	Construction Techniques	
Engineering Economics & Accounting	Cost Estimation	
Operations Research	Information System for Managers	
Constitution of India	Project Management	

Fourth Year and Fifth Year structure will be similar to other MBA (Tech.) Programme with relevant subjets.

B.Tech.
Bachelor of Technology

PROGRAMME DURATION & INTAKE
Four year Full Time B.Tech. in the following disciplines with the intake mentioned against each is offered at the Mumbai and Shirpur Campus.

Areas	Mumbai (No. of Seats)	Shirpur (No. of Seats)
Information Technology	60	60
Computer	120	120
Electronics	60	-
Telecommunication	60	120
Mechanical	60	60
Civil	60	60

UNIQUE FEATURES
- Modern facilities to provide ambience and support for curricular and extra curricular activities for the overall development of students
- Dedicated, qualified faculty to ensure high standard of teaching, learning and evaluation processes
- Periodic review and revision of curricula based on feedback from the industry with quick response to ensure the relevance of the programmes to the changing needs of industry
- Trimester system with proper planning to utilize the resources effectively and efficiently
- Industry visits and industry based project work as part of the curricula to provide recognition and reward to the students in the form of job offers or support for further studies and research

ELIGIBILITY
For B. Tech. courses, the candidate must have passed 10+2 or equivalent, including International IB Diploma and Cambridge Exam with Science or Science Vocational (with PCM and English as compulsory subjects) with minimum 50% marks in PCM. (Minimum 150 marks out of 300). Those awaiting their 10+2 exam results this year may also apply.

SELECTION PROCEDURE

Students are admitted to the B.Tech. Programme if they meet the required standards of the three-stage process described below:

Stage 1: All candidates aspiring to and eligible for admission to the B.Tech. Programme will be required to appear for a written test to be conducted at various locations in India. The venue will be announced well before the test date.

Stage 2: Based on the performance in the written test, candidates will be short-listed and called for a personal interview at NMIMS Campus, Mumbai.

Stage 3: Based on the performance in Stage 1 and Stage 2 and on the candidates' 12th standard PCM marks, a composite merit list will be drawn as per criteria laid down by the school. Candidates will be called for a counseling session based on the above merit list. In the counseling session, candidates will be allotted admissions to various disciplines as per their choice and availability of discipline.

TEACHING, LEARNING AND EVALUATION

In most of the subjects, there will be theory and practical classes. Time table will be for approximately 32 to 36 contact hours per week for B. Tech. Programmes. In the fourth year of the course, approximately 40% of the time will be allotted for industry based project work for which guidance by the faculty will be available and the students will be required to make a presentation of the project work.

Student is required to have minimum of 80% attendance in the classes for every subject and must complete all the term work prescribed for the subjects.

For every subject 50 marks will be assigned for continuous assessment: 5 marks for attendance, 20 marks for class tests, 25 marks for term work containing practical work, and/ or assignments and practical/ oral exam. The term end exam will be assigned marks out of 50. For passing in a subject, student must obtain a minimum of 50% marks in combined total of continuous assessment and term end exam.

COURSE STRUCTURE

The course structures for various B.Tech. Programmes are subject to review and revision by the Board of Studies in Engineering Sciences and approval of the Academic Council of the University.

B.Tech.
(Information Technology)

First Year (Common for All Branches: IT Engg., Computer Engg., Electronics Engg., EXTC Engg., Mechanical Engg. & Civil Engg.)

Trimester I	Trimester II	Trimester III
Maths I	Maths II	Maths III
Applied Science I	Communication Skill	Workshop
Drawing	Engineering Mechanics	Applied Science II
BEE	Basic Electronics	Electrical Measuring Instruments and Machines
Computer Prog.-I	Computer Prog.-II	Computer Application

Second year

Trimester IV	Trimester V	Trimester VI
Maths IV **	Maths V **	Microprocessor & Microcontroller *
Digital Logic Design *	Computer Organization and Architecture *	Operating System *
Data Structures & Algorithms	Digital Communication	Database Management System *
Principles of Communication	Web Programming	Computer Networks*
Programming Workshop*	Seminar – I (Report)	Seminar – 2 (Presentation)

Third year

Trimester VII	Trimester VIII	Trimester IX
Unix Programming *	Computer Simulation & Modelling	Distributed Computing *
Software Engineering*	Object Oriented Modeling & Design	Software Architecture
Principles of Economics and Management*	Constitution of India**	Wireless Networking
Advanced Database Management Systems	Advanced Computer Networks*	Digital Signal Processing *
Seminar – 3 (Report)	Seminar – 4 (Presentation)	Environmental Studies**

Forth year

Trimester – X	Trimester –XI	Trimester –XII
Project Management	Data Warehousing & Mining	Multimedia Systems*
Image Processing*	Information Security	Service Oriented Architecture
Elective-I	Elective- II	Elective – III
Project-I **	Project-II **	Project-III **

Elective–I	Elective – II	Elective-III
Artificial Intelligence	Soft Computing	Parallel Computing
Software Testing	Management Information System	E-Commerce
Information Storage & Management	GIS	Robotics
Embedded System	Advanced Image Processing	High Speed Networking Architecture and Protocols.

*Syllabus Common with Computer **Common for all branches.