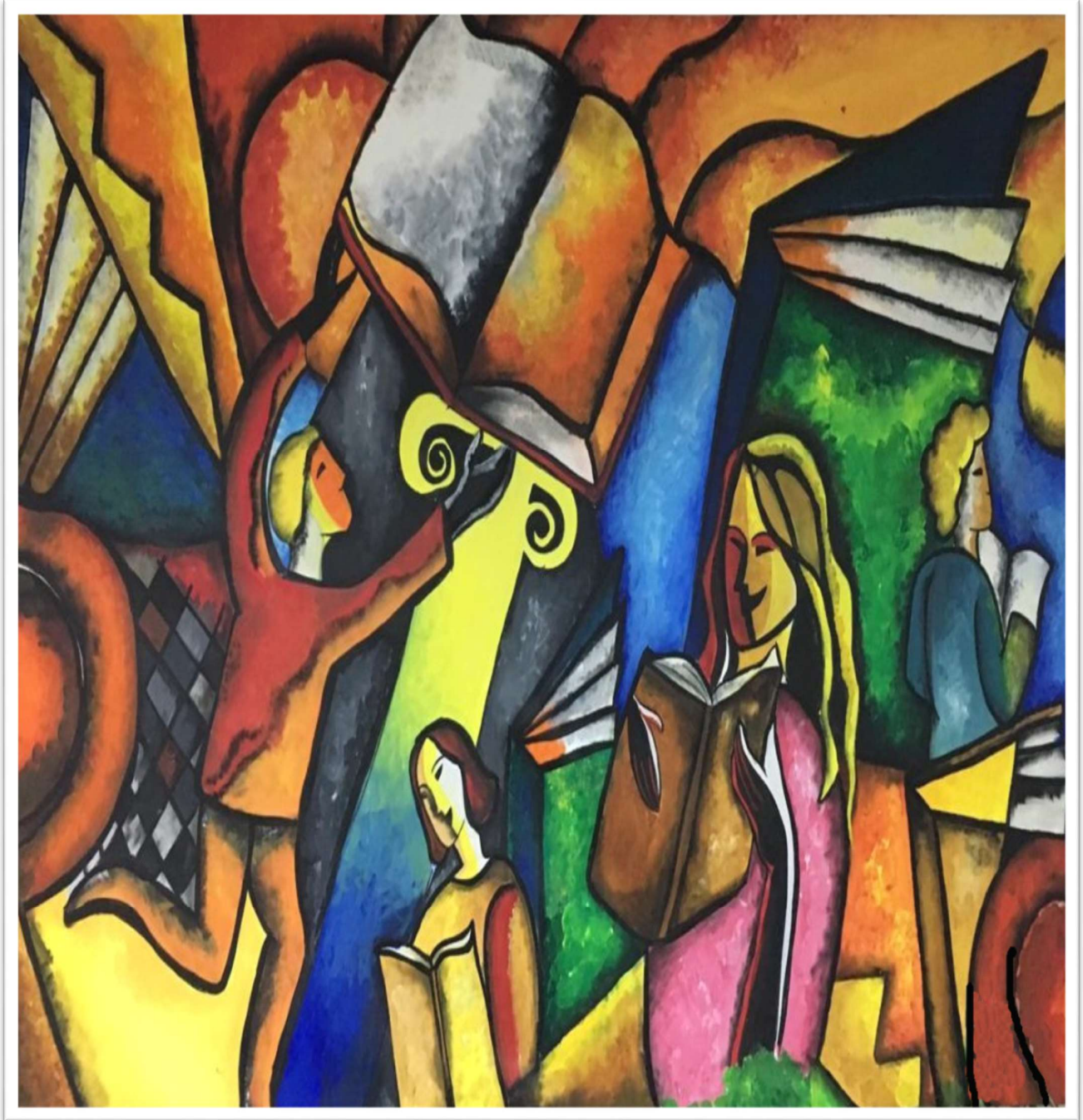




## Academic Courses after +2



**Central Board of Secondary Education India**



## NOTE

The compendium of courses after +2, is an earnest effort of the board to facilitate students while scouting for right course choices. While all care has been taken to provide information, although in brief, about the traditional, popular and new age courses, it still may not be as comprehensive considering that there are an estimated 900 universities and over 41,000 colleges in the country providing higher education and teaching a plethora of subjects. The intention is limited to creating awareness among the students (please also see disclaimer). The board will not be responsible for any inadvertent omission, variation in information, nature of courses and availability in a particular institute that may take place over time. For details, classifications or combinations, users are requested to visit the official websites of UGC, AICTE, NAAC and individual institutes.

**\*\*Disclaimer:** The list of courses and that of Institutes/Universities is in no way exhaustive. These lists are only illustrative and are expected to generate enough curiosity in the child to want to inquire/explore further on the scope, possibilities, avenues, etc. for each of these courses and/or for looking for other options/areas that go beyond these courses. It may also be noted that most of these courses are also offered by several private institutions/universities. The reader is expected to further research on this. Efforts will be made to update the content to the extent possible.



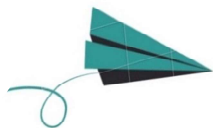


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**COVER PICTURE  
DELHI PUBLIC SCHOOL , SUSHANT LOK, GURUGRAM**





S. NO.	LIST OF COURSES
1.	Aeronautical Engineering
2.	Aerospace Engineering
3.	Architecture
4.	Artificial Intelligence and Machine Learning
5.	Astronomy And Astrophysics
6.	Automobile Engineering
7.	Bio Medical Engineering
8.	Bio Technology Engineering
9.	Ceramics Engineering
10.	Chemical Engineering
11.	Civil Engineering
12.	Computer Science Engineering
13.	Electrical And Electronics Engineering
14.	Electronics And Communication Engineering
15.	Industrial Engineering
16.	Information Communications And Entertainment
17.	Instrumentation Engineering





S. NO.	LIST OF COURSES
18.	Manufacturing Science & Engineering
19.	Marine Engineering
20.	Mechanical Engineering
21.	Medical Electronics Engineering
22.	Metallurgy
23.	Meteorology
24.	Mining Engineering
25.	Naval Architecture Engineering
26.	Physical Sciences
27.	Polymer Engineering
28.	Robotics
29.	Textile Engineering
30.	Agricultural Science
31.	Biological Science
32.	Biotechnology
33.	Computer Applications
34.	Computer Science
35.	Cyber Security





S. NO.	LIST OF COURSES
36.	Earth Science/ Geography
37.	Environmental Sciences
38.	Fisheries
39.	Floriculture /Horticulture
40.	Food Technology
41.	Forestry
42.	Oceanography
43.	Statistical Science
44.	Veterinary Sciences
45.	Wildlife Biology
46.	Zoology
47.	Ayurveda BAMS
48.	Dental BDS
49.	Homeopathy
50.	Naturopathy
51.	Pharmacy
52.	Siddha
53.	Unani





S. NO.	LIST OF COURSES
54.	Anthropology
55.	Archaeology
56.	Art Restoration
57.	Curation
58.	Educational/Vocational School Counsellor
59.	Monuments And Sculpture Restoration
60.	Museology
61.	Physiotherapy
62.	Rehabilitation Psychology
63.	Rehabilitation Therapy
64.	Social Work
65.	Special Educator
66.	Speech Language And Hearing
67.	Law
68.	Advertising
69.	Journalism
70.	Mass Communication
71.	Public Relations





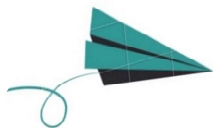
S. NO.	LIST OF COURSES
72.	Art Direction
73.	Choreography
74.	Direction
75.	Film/Drama Production
76.	Fine Arts
77.	Performing Arts
78.	Vocal and Instrumental Music
79.	Animation
80.	Cinematography
81.	Communication Design
82.	Design
83.	Graphic Designing
84.	Photography
85.	Actuarial Sciences
86.	Bank Management
87.	Business Administration
88.	Business Management
89.	Costs and Works Accounts







S. NO.	LIST OF COURSES
90.	Chartered Accountancy
91.	Chartered Financial Analysis
92.	Event Management
93.	Hospital Management
94.	Hotel Management
95.	Human Resource Management
96.	Insurance
97.	Logistics & Supply Chain Management
98.	Management
99.	Bachelor of Arts
100.	Diploma in Elementary Education (D.EL.ED.)/Bachelor of Education (B.Ed.)
101.	Corporate Intelligence
102.	Detective
103.	Food Science and Nutrition
104.	Foreign Languages
105.	Home Science
106.	Interior Designing
107.	Liberal Studies





S. NO.	LIST OF COURSES
108.	Library Sciences
109.	Montessori Teaching
110.	Nutrition and Dietetics
111.	Physical Education
112.	Sports And Sports Management
113.	Tourism & Travels
114.	Allopathy
115.	Defense & Strategic Studies
116.	Company Secretary
117.	Blockchain Technology
118.	Digital Marketing
119.	Civil Services
120.	Radiology
121.	Disaster Management
122.	Telecom Management
123.	Entrepreneurship





# AERONAUTICAL ENGINEERING

## Introduction

A course in Aeronautical Engineering includes the designing, manufacturing, testing and maintenance of aircraft in commercial aviation and defence sectors and involves the study of advanced level Physics and Mathematics.

## Courses

- B. Tech in Aeronautical Engineering
- B.E. in Aeronautical Engineering
- M. Tech in Aeronautical Engineering
- M. Tech in Avionics
- M.E. in Aeronautical Engineering
- M.E. in Avionics

## Eligibility

### Under graduate Level:

10+2 examination with Physics, Mathematics, Chemistry

### Post Graduate Level

Undergraduate degree in Aeronautical / Aerospace A or related Engineering, or passed both Sections A and B of AMAeSI (AeSI-Aeronautical Society of India)

### Doctoral Level

Must have completed post-graduation in Aeronautical / Aerospace Engineering

Must have a valid GATE score

## Institutes/Universities

1. Institute of Aeronautical Engineering , Hyderabad
2. Manipal Institute of Technology, Manipal University, Manipal
3. Hindustan Institute of Technology and Science, Hindustan University, Chennai
4. Institute of Aeronautical and Marine Engineering, Bengaluru
5. PEC University of Technology, Chandigarh
6. Madras Institute of Technology, Anna University, Chennai
7. Indian Institute of Aeronautical Engineering & Information, Technology (IIAEIT), Pune.
8. CIAE (Centre for Internationally Recognised Aeronautical/Aerospace/Aircraft Engineering), Dehradun
9. Indian Academy of Aeronautical Technology, Lucknow





# AEROSPACE ENGINEERING

## Introduction

Aerospace engineering is the branch of engineering which deals with the research, design, development, construction, testing, of aircraft and spacecraft. It is divided into two major and overlapping branches: aeronautical engineering related with aircrafts in the earth's atmosphere, and astronautical engineering that deals with spacecrafts that operate outside the earth's atmosphere.

## Courses

- B. Tech Degree
- Dual Degree is the combination of a Bachelor and a Master degree
- M. Tech degree with specialization courses
- Ph. D Programs



Known as the “missile man of India”, Avul Pakir Jainulabdeen Abdul Kalam, His Excellency, the 11th President of India was an aerospace scientist. He studied physics and aerospace engineering.

## Eligibility

### Under graduate Level

10+2 with Physics, Chemistry and Mathematics or equivalent examination. The IITs consider score of JEE and other institutions have their own separate entrance exams.

### Post Graduate Level

Undergraduate degree in Aeronautical/ Aerospace or related Engineering, or passed both Sections.

### Doctoral Level

Must have completed Post-graduation in Aeronautical / Aerospace Engineering  
Must have a valid GATE score

## Institutes/Universities

1. Indian Institute of Technology (IIT) Kharagpur
2. Indian Institute of Technology, Mumbai
3. Indian Institute of Technology, Chennai
4. Indian Institute of Technology, Madras
5. Punjab Engineering College (deemed to be University), Chandigarh
6. Indian Institute of Engineering Science and Technology (IEST), Shibpur, West Bengal





# ARCHITECTURE

## Introduction

Architecture is the science that deals with planning, designing, safety, affordability, and supervision of construction works for houses, office buildings, skyscrapers, landscapes, or entire cities.

## Courses

- B. Arch.
- M. Arch.
- Ph. D Programmes

The discipline of Architecture is governed under the provisions of the Architects Act, 1972 (A Special Central Act) and is regulated by the Council of Architecture. Only persons registered with the Council as Architects can practice of the profession of an architect in the country.

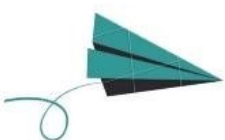
## Eligibility

10+2 level with Science Stream

The IITs consider score of JEE and other institutions have their own separate entrance exams.

## Institutes/Universities

1. Indian Institute of Technology , Kharagpur
2. Indian Institute of Technology (IIT), Roorkee
3. Aligarh Muslim University Uttar Pradesh
4. Indian Institute of Engineering Science and Technology (IIEST), Shibpur, West Bengal
5. Birla Institute of Technology, Mesra, Ranchi
6. Anna University, Chennai
7. Centre for Environmental Planning and Technology (CEPT) University, Ahmadabad, Gujarat
8. Swami Vivekanand Technical University Chhattisgarh
9. School of Planning and Architecture Delhi
10. National Institute of Technology (NIT), Patna
11. National Institute of Technology, Hamirpur
12. Jamia Millia Islamia University
13. Jawaharlal Nehru Technological University Hyderabad
14. Department of Architecture and Planning Engineering, Nagpur





# ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## Introduction

Artificial Intelligence belongs to a field of science and engineering in which studies and research aim to develop intelligent computer machines that can perform tasks with human intelligence. It includes speech recognition, visual perception, logic and decision, multi-language translation and more. Digital bits of data is interpreted and turned into significant experiences and outcomes with aid / assistance of robotics, automation and sophisticated computer software and programs.

## Courses

- Machine Learning (Intermediate Level)- Prerequisites Probability and Statistics (or equivalent course). Some background in linear algebra and optimization. (IISc Bangalore)
- Advanced Certification in Artificial Intelligence & Machine Learning (From IIIT-H )
- B. Tech Computer Science & Engineering with specialization in AI & Machine Learning
- B. Tech CS or IT/ECE/ME/IN or M.Sc. degree in CS/IT graphic design, information technology, health informatics, or equivalent.

## Eligibility

10+2 Science

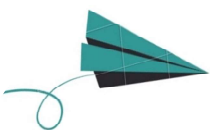
After, B Tech, valid GATE scores is required for M. Tech. CS/AI/IT, IC Technology and Bioinformatics

## Institutes/ Universities

1. IISc Bangalore
2. IIT Bombay
3. IIT Kharagpur
4. IIIT Hyderabad, Allahabad
5. IIT Madras
6. University of Hyderabad

In a revolutionary study, researchers have discovered that artificial intelligence could help detect Alzheimer`s diseases from brain scans much before actual diagnosis happens. Researchers at UC said that by the time a definitive diagnosis is made for Alzheimer`s, too many neurons are dead already, making it essentially irreversible. The early diagnosis could help doctors treat the degenerative disease much before it becomes difficult to contain.

(Source: zee news and ANI Jan 04, 2019,)





# ASTRONOMY AND ASTROPHYSICS

## Introduction

Astronomy is a combination of physics, chemistry and mathematical principles/rules. Astrophysics can be called its offshoot. It deals with detailed study of the physical, chemical and dynamic properties of celestial objects. It also deals with the phenomena over and above Earth's atmosphere. There is associated study of calculations of orbits, gravitational forces, satellites, meteors, galaxies, comets, stars, planetary objects, planets, satellites etc. In Astrophysics, we explore and ensure properties/nature of the astronomical objects with the help of laws of physics and chemistry. There is also the field of Cosmology which studies the origin and evolution of the universe.

## Courses

- M.Sc. /M. Phil PhD (Physics)
- M.Sc. Astronomy,
- M.Sc. – Astrophysics
- Integrated M. Tech- Ph. D (Tech.) programme in Astronomical Instrumentation (Eligibility-B. Tech / BE degree in Electrical/ Instrumentation/ Electronics and Communications /Computer Science/Mechanical Engineering or M. Sc degree in Physics / Electronic Science / Astrophysics/ Applied Mathematics /Applied Physics are also eligible to apply)
- Ph. D Astrophysics/Astronomy

## Eligibility

10 +2 with PCM

Entrance Tests (PhD from IUCAA):

1. IUCAA-NCRA Admission Test (INAT) Link  
Details: <http://inat.ncra.tifr.res.in/inat>
2. Joint Entrance Screening Test (JEST)  
Details: <http://www.jest.org.in/>
3. CSIR-UGC NET for JRF (Physics)

## Institutes/Universities

1. University of Delhi, Delhi
2. Indian Institute of Astrophysics, Bangalore
3. Indian Institute of Science, Bangalore
4. Raman Research Institute, Bangalore
5. Inter-University Centre for Astronomy and Astrophysics (IUCAA) – Pune
6. National Centre for Radio Astronomy - Tata Fundamental Research Institute – Pune.
7. Aryabhata Research Institute of Observational Sciences (ARIES), Nainital
8. Harish-Chandra Research Institute (HRI), Allahabad
9. Osmania University, Hyderabad
10. Madras University, Chennai





# AUTOMOBILE ENGINEERING

## Introduction

The study of automotive engineering is to design, develop, fabricate, and test vehicles or vehicle components from the concept stage to production stage by incorporating various elements of engineering such as mechanical, electrical, electronic, software and safety engineering.

## Eligibility

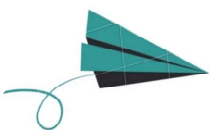
10 + 2 with Science for B. Tech / B.E courses percentage of marks in Science subjects as specified is required to qualify engineering competitive exam.

## Courses

- B. Tech in Automobile Engineering
- Dual Courses
- M. Tech in Automobile Engineering

## Institutes/Universities

1. University of Calicut, Malappuram, Kerala.
2. Maulana Abul Kalam Azad University of Technology, West Bengal.
3. Rajasthan Technical University, Kota, Rajasthan







# BIO MEDICAL ENGINEERING

## Introduction

Biomedical engineering is the study of engineering as applied in the medical sector such as manufacturing prostheses, medical equipment, diagnostic devices and drugs. Professionals in this field are known as a biomedical engineers. The biomedical engineers utilize the engineering methods and theories to enhance health care. Orthopaedic and rehabilitation engineering, molecular, cellular and tissue engineering are also a part of this discipline.

## Courses

- B.Sc. in Bio medical Science
- B Tech in Biomedical Engineering
- Dual Degree programmes
- Ph. D programme in Bio medical science

## Eligibility

(10+2) examination with biology, maths and chemistry.

For IITs, It is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration for the course is 4 years.

## Institutes/Universities

1. All India Institute of Medical Sciences New Delhi
2. Dr. B.R. Ambedkar Centre of Biomedical Research, University of Delhi,
3. Indian Institute of Technology (BHU) Varanasi
4. Department of Biomedical Engineering, (University College of Engineering) Osmania University, Hyderabad
5. Govt. Model Engineering College, Kochi, Kerala





# BIO TECHNOLOGY ENGINEERING

## Introduction

Biotechnology engineering is a branch of engineering where technology is combined with biology for research and development. Biotechnology involves wide range of subjects such as engineering, genetics, biochemistry, microbiology and chemistry.

There are various applications of biotechnology in fields such as animal husbandry, growth of vaccines and medicines, agriculture, pollution control, energy production and conservation, healing of prolonged disease and ecological conservation such as

1. Gene therapy
2. Tissue culture
3. Immune technologies
4. Genetic Engineering
5. Drug Design
6. Stem cell techniques
7. New DNA technologies
8. Photosynthetic efficiency
9. Enzyme engineering and technology

## Courses

- Diploma in Biotechnology Engineering
- Bachelor of Engineering in Biotechnology
- Bachelor of Technology in Bioprocess Technology
- Bachelor of Technology in Biotechnology and Biochemical Engineering
- Bachelor of Technology in Biotechnology
- Master of Engineering in Biotechnology
- Master of Technology in Biotechnology

## Eligibility

(10+2) examination with biology, maths and chemistry. For IITs, It is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration for the course is 4 years.

## Institutes/Universities

1. IITs
2. Aarupadai Veedu Institute of Technology (AVIT), Chennai, Tamil Nadu,
3. Acharya Nagarjuna University (ANU), Guntur, Guntur, Andhra Pradesh,
4. Alagappa University, Karaikudi, Karaikudi, Tamil Nadu,





# CERAMICS ENGINEERING

## Introduction

Ceramic engineering is the science and technology of creating objects from inorganic, non-metallic materials. As ceramics are heat resistant, they are used in a wide range of industries, including mining, aerospace, medicine, refinery, food and chemical industries, packaging science, electronics, industrial and transmission electricity, and guided light wave transmission.

## Courses

- B. Tech
- M. Tech

## Eligibility

(10+2) examination with biology, maths and chemistry. For IITs, It is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration for the course is 4 years.

## Institutes/Universities

1. IITs
2. Andhra University College of Engineering, Visakhapatnam - Andhra Pradesh
3. Government College of Engineering and Ceramic Technology – Kolkata
4. Rajasthan Technical University, Kota, Rajasthan





# CHEMICAL ENGINEERING

## Introduction

Chemical Engineering is the design and maintenance of chemical plants and the development of chemical processes for converting raw materials or chemicals into valuable forms including those used to remove chemicals from waste materials, to enable large-scale manufacture. It combines knowledge of Chemistry and Engineering for the production of chemicals and related by-products.

This branch of engineering is a varied field, covering areas from biotechnology and nanotechnology to mineral processing. It covers various fields of chemical technology in mineral based industries, petrochemical plants, pharmaceuticals, synthetic fibres, petroleum refining plants etc. Chemical engineers design and operate chemical plants and improve methods of production.

## Courses

- B. Tech
- M. Tech

## Eligibility

10+2 pass with physics, chemistry and mathematics from recognized Board of examination. Most of the colleges offer admission on the basis of score obtained in national/state level entrance test.

## Institutes/Universities

1. Indian Institute of Technology (IIT) Kharagpur
2. Indian Institute of Technology (IIT) Kanpur
3. Indian institute of Technology (Madras)
4. Andhra University, Visakhapatnam
5. Rajasthan Technical University, Kota, Rajasthan
6. Guru Gobind Singh Indraprastha University, Delhi





# CIVIL ENGINEERING

## Introduction

Civil Engineering involves planning, designing and executing structural works. The course deals with a wide variety of engineering tasks including designing, supervision and construction activities of public works like roads, bridges, tunnels, buildings, airports, dams, water works, sewage systems, ports etc. and offers a multitude of challenging career opportunities. A civil engineer is responsible for planning and designing a project, constructing the project to the required scale, and maintenance of the product.

The major specialisations within civil engineering are structural, water resources, environmental, construction, transportation, geo-technical engineering etc.

## Courses

- B. Tech
- M. Tech (Dual Degree)
- Ph. D

## Eligibility

10+2 with Physics, Chemistry, and Mathematics as core subjects.

## Institutes/Universities

1. Indian Institute of Technology (IIT) Kharagpur
2. Indian Institute of Technology (IIT) Kanpur
3. Andhra University, Visakhapatnam
4. Calicut University, Malappuram, Kerala.
5. Aliah University, Kolkata
6. Rajasthan Technical University, Kota, Rajasthan
7. Guru Gobind Singh Indraprastha University, Delhi
8. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# COMPUTER SCIENCE ENGINEERING

## Introduction

Computer Science Engineering involves both computer science and electronics engineering. It includes testing and designing of computer components. There are two types of computer engineers. Computer software engineers and computer hardware engineers.

## Eligibility

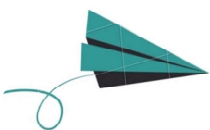
(10+2) with biology, maths and chemistry. For IITs, It is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration for this course is 4 years.

## Courses

- B. Tech Computer Science and Engineering
- B. Tech Computer Science and Information Technology
- B. Tech Computer Software Engineering
- Computer Science and Engineering

## Institutes/Universities

1. Indian Institute of Technology (IIT) Kharagpur
2. Indian Institute of Technology (IIT) Kanpur
3. Indian institute of Technology (Madras)
4. Rajasthan Technical University, Kota, Rajasthan





# ELECTRICAL AND ELECTRONICS ENGINEERING

## Introduction

Electrical and electronics engineering is about use of technology ranging from global positioning systems to electrical power generators. These engineers are responsible for designing, developing, testing as well supervising the production of electrical and electronic equipment and machinery.

Specialization in Electrical and electronics engineering include areas like power generation, transmission and distribution; communications; manufacture of electrical equipment etc. or one particular specialty within these area; e.g. industrial robot control systems or aviation electronics.

There are Microwave engineers who produce radar, communications, and fibres optics systems. Communications and signal processing as in CD players and high definition TV. Electrical engineers also design and implement automatic control systems such as airplane guidance and autopilot systems.

## Courses

- B. Tech
- M. Tech

## Eligibility

Pass in Higher Secondary (10+2) or its equivalent (Physics, Chemistry and Mathematics),

## Institutes/Universities

IITs including

1. Indian Institute of Technology (IIT) Kharagpur
2. Indian Institute of Technology (IIT) Kanpur
3. Andhra University, Visakhapatnam





# ELECTRONICS AND COMMUNICATION ENGINEERING

## Introduction

Electronics and Communication Engineering deal with electronic devices and software interfaces. It helps to increase productivity in various industries such as oil, energy, agriculture, and telecommunication media including television, radio and computers. The course is also applied to many other important sectors such as steel, petroleum and chemical industries; healthcare industry; and transportation industry.

## Eligibility

(10+2) examination with biology, maths and chemistry. For IITs, It is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration for the course is 4 years.

## Courses

- Diploma in Electronics and Communication Engineering
- Bachelor of Engineering in Electronics & Communication Engineering
- Master of Engineering in Electronics & Communication Engineering

## Institutes/Universities

1. IITs
2. Indian Institute of Technology (IIT) Kharagpur
3. Guru Gobind Singh Indraprastha University, Delhi







# INDUSTRIAL ENGINEERING

## Introduction

Even though the term industrial engineering is originally applied to manufacturing, it has extended its service to fields like operations research, systems engineering, ergonomics and quality engineering.

Industrial engineering is also known as Operations management, Production Engineering, Manufacturing Engineering or Manufacturing Systems Engineering.

In healthcare, Industrial Engineers are more commonly known as Management Engineers or Health Systems Engineers.

## Eligibility

10+2

## Institutes/Universities

1. Indian Institute of Technology (IIT), Kharagpur
2. Indian Institute of Technology (IIT), Kanpur

## Courses

- B. Tech
- M. Tech





# INFORMATION, COMMUNICATION, ENTERTAINMENT

## Introduction

This is the age of Information- Communication- Entertainment (ICE) and massive expansion in broadcasting with the introduction of more television channels, direct broadcast satellites, T.V./Computer link ups, cable T.V. and rapid growth in both All India Radio and other broadcasting services particularly FM.

## Courses

- B.A Mass Communication
- B.A. Journalism

## Eligibility

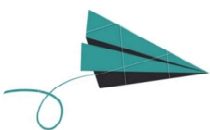
After 10+2

## Institutes/Universities

1. Xaviers Institute of Communication (XIC),
2. Indraprastha College, Delhi University, New Delhi (Mass Communication)
3. Lady Sri Ram College, Delhi University, New Delhi (BA Hons, Journalism)
4. Communication and Culture Media Education Programme. Loyola College, Madras (Mass Communication)

## After Graduation

1. International Institute of Information Technology, Hyderabad, Andhra Pradesh.
2. Chitrabani, Kolkata
3. Mass Communication Research Centre, Jamia, New Delhi
4. Indian Institute of Mass Communication, JNU Campus, New Delhi
5. Mudra Institute of Communication, Ahmedabad-
6. Satyajit Ray Film And Television Institute, Kolkata
7. National Institute of design, Ahmedabad
8. Film And Television Institute of India, Pune
9. NIMT Institute of Mass Communication, Uttar Pradesh.





# INSTRUMENTATION ENGINEERING

## Introduction

Instrumentation engineering is a branch of electrical and electronics engineering that deals with the study of engineering principles and procedures of computing instruments used in designing and assembling automated systems.

## Courses

- B.E. / B. Tech.
- M.E. / M. Tech.
- M. Phil.
- Ph. D

## Eligibility

10+2 with Physics, Chemistry, and Mathematics as core subjects. Students must go through entrance exams such as JEE (Main) & JEE (Advance) for admissions to B. Tech. courses.

## Institutes/Universities

1. Bangalore Institute of Technology, Karnataka
2. Bharti Vidyapeeth College of Engineering, Maharashtra
3. BMS College Of Engineering, Karnataka
4. Dayananda Sagar Institute of Technology, Karnataka
5. M S Ramaiah Institute of Technology, Karnataka





# MANUFACTURING SCIENCE & ENGINEERING

## Introduction

Manufacturing Science and Engineering is the production of goods for use or sale using labour and machines, tools, chemical and biological processing, or formulation. Applied to industrial production, raw materials are transformed into finished goods on a large scale to be used for manufacturing other, more complex products, such as aircrafts, household appliances or automobiles.

## Courses

B. E./ B. Tech.

## Eligibility

10+2 or equivalent,

The candidate must have a valid Joint Entrance Examination score.

## Institutes/Universities

1. Indian Institute of Technology, Kharagpur
2. Ranchi University, Ranchi, Jharkhand.
3. Siddaganga Institute of Technology, Tumkur, Karnataka.





# MARINE ENGINEERING

## Introduction

Marine engineering deals with the nautical architecture and science and basically is meant for research conducted in oceans, coastal or inland waters connected to the sea. Marine engineers have the entire responsibility of the ship's technical management.

## Eligibility

(10+2) with biology, maths and chemistry. For IITs, it is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration of this course is 4 years.

## Courses

- Diploma in Marine Engineering
- Bachelor of Engineering in Marine Engineering
- Bachelor of Technology in Marine Engineering
- Bachelor of Technology in Naval architecture & Ocean Engineering
- Master of Technology in Air Armament
- Master of Engineering in Marine Engineering
- Master of Technology in Marine Engineering
- Master of Technology in Ocean Engineering and Naval Architecture

## Institutes/Universities

1. IITs
2. International Institute of Maritime Science, (West Bengal),
3. College of Engineering, (Andhra Pradesh),
4. Maharashtra Academy of Naval Education & Training, (Maharashtra),
5. Marine Engineering Research Institute, (West Bengal),
6. Lal Bahadur Shastri College of Advanced Maritime Studies & Research, (Mumbai).





# MECHANICAL ENGINEERING

## Introduction

Mechanical engineering deals with application of the principles of mechanics and energy to design machines and devices right from automobiles, trucks, airplanes to trains tractors, fax machines or even power plants.

Robotic inspection systems, Cryogenic technology, Laser material processing are also some new emerging areas of study.

## Courses

- Certificate in Mechanic of four Wheeler
- Diploma in Mechatronics
- Diploma in Mechanical Engineering
- Bachelor of Engineering in Mechanical Engineering
- Bachelor of Technology in Mechanical & Automation Engineering
- Bachelor of Technology in Mechanical Engineering
- Bachelor of Technology in Mechatronics
- Master of Engineering in Mechanical Engineering
- Master of Engineering in Tool Design
- Master of Technology in Mechanical Engineering
- Doctor of Philosophy in Mechanical Engineering

## Eligibility

(10+2) with biology, maths and chemistry. For IITs, It is mandatory to qualify in the Joint Entrance Examinations. The duration of the course is 4 years.

## Institutes/Universities

1. IITS
2. Achutha Institute of Technology, Bangalore (Karnataka)
3. Reva Institute of Technology and Management, Bangalore (Karnataka)
4. HKBK College of Engineering, Bangalore (Karnataka)

Mechanical Engineering is a very popular course and perhaps one of the oldest also. The list of institutes is exhaustive apart from the few mentioned here. A number of other institutes conduct this course





# MEDICAL ELECTRONICS ENGINEERING

## Introduction

Medical Electronics engineering relates to the combined study of biology with engineering principles for developing artificial organs, prostheses (artificial devices that replace missing body parts), magnetic resonance imaging (MRI) and other health management systems.

The course also offers specialisation in biomechanics, rehabilitation and orthopaedic engineering.

## Courses

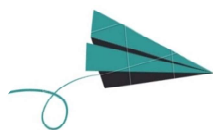
- Bachelor of Engineering in Medical Electronics
- Bachelor of Technology in Medical Electronics
- Bachelor of Engineering in Medical Electronics Engineering

## Eligibility

(10+2) examination with biology, maths and chemistry. For IITs, it is mandatory to qualify in the Joint Entrance Examinations. The duration of the course is 4 years.

## Institutes/Universities

1. IITs
2. BMS College of Engineering, Bengaluru.
3. Dayananda Sagar College of Engineering, Bengaluru. AFFILIATED TO VTU, APPROVED BY AICTE & UGC, ACCREDITED BY NAAC
4. Dr. Ambedkar Institute of Technology, Bangalore. affiliated to Visvesvaraya Technological University, Belgaum and accredited by AICTE





# Metallurgy

## Introduction

Metallurgy is a field of materials science and of materials engineering that deals with the physical and chemical behaviour of metallic elements and their mixtures called alloys.

## Eligibility

10+2 in Science with Physics, Chemistry and Maths

## Courses

- Bachelor of Technology (B. Tech.) in Metallurgy and Materials Engineering:
- Master of Technology (M. Tech.) in Material Science and Engineering:
- B. E. / B. Tech. or equivalent in Metallurgical/ Materials/ Metallurgy and Materials/ Mechanical/Production/ Ceramics Engineering;

## Institutes/Universities

1. Indian Institute of Technology, Roorkee
2. Indian Institute of Technology (BHU), Varanasi.
3. National Institute of Technology, Tiruchirappalli.
4. Indian Institute of Engineering Science and Technology, Shibpur, Howrah, West Bengal.
5. Government College of Engineering, Salem, Tamil Nadu.
6. College of Engineering Pune, Maharashtra.
7. Government Engineering College, Gandhinagar, Gujarat.







# METEOROLOGY

## Introduction

Meteorology deals in atmospheric studies to know and predict weather and climate. It is the examination of the atmospheric and climate conditions affecting the earth and its population.

## Courses

- B. Tech./B. Sc.
- M. Tech./M.Sc.
- Ph. D.

## Eligibility

12<sup>th</sup> with physics and chemistry

## Institutes/Universities

1. Cochin University of Science and Technology, Kerala.
2. Indian Institute of Technology (IIT), Delhi.
3. Andhra University, Vishakhapatnam, Andhra Pradesh.
4. Indian Institute of Technology (IIT) Kharagpur, West Bengal.
5. Shivaji University, Vidyanagar, Maharashtra.





# MINING ENGINEERING

## Introduction

Mining engineering, also referred as mineral engineering, deals with the study of the techniques to extract and process minerals from their natural surroundings. A mining engineer has to study ore reserve analysis, operations and planning, mine health and safety, drilling, blasting, ventilation and related topics.

## Courses

- BE Mining Engineering
- B. Tech Mining Engineering
- Diploma in Mining and Mine Surveying Engineering
- ME Mining Engineering
- M. Tech Mining Engineering
- PG Research Programme on Materials Resource Engineering
- Ph. D Mining Engineering
- Postgraduate Diploma in Mineral Engineering

## Eligibility

(10+2) biology, maths and chemistry. For IITs, it is mandatory to qualify in the Joint Entrance Examinations (JEE). The duration of the course is 4 years.

## Institutes/Universities

1. IITs
2. Dr. T. Thimmaiah Institute of Technology, Kolar (Karnataka)
3. Anna University College of Engineering, Chennai (Tamil Nadu)
4. Bengal Engineering and Science University, Howrah (West Bengal)
5. Government Engineering College, Bilaspur (Chhattisgarh)
6. Jai Narain Vyas University: Faculty of Engineering and Architecture, Jodhpur (Rajasthan)
7. Maharana Pratap University of Agriculture and Technology: College of Technology and Engineering, Udaipur (Rajasthan)
8. Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur (Maharashtra)





# NAVAL ARCHITECTURE ENGINEERING

## Introduction

The course in Naval Architecture primarily relates to the design, construction or maintenance of all types of marine vessels such as ships, boats, oil and gas tankers, containers, passenger ships, ferries etc.

## Courses Offered

BE course, duration: 04 year

## Eligibility

(10+2) or equivalent examination with physics, Chemistry, Mathematics and English as separate subjects.

## Institutes/Universities

1. Andhra University College of Engineering
2. IIT, Kharagpur
3. IIT, Chennai
4. Kochi University of Science and Technology.
5. Institute of Shipbuilding, Goa





# PHYSICAL SCIENCES

## Introduction

Physical science is the study of physics and chemistry of nature. It overlaps life sciences in a way to include ecology and the evidence of historical facts of evolution.

## Courses

- B. Sc / M. Sc.
- B. Tech /M. Tech Biological Engineering

## Eligibility

10+2 or its equivalent with Mathematics, Physics, Chemistry

For IIT's, it is Mandatory to qualify in the Joint Entrance Examinations (J.E.E)

## Institutes/Universities

1. Indian Institute of Technology, New Delhi
2. Indian Institute of Technology, Madras
3. Indian Institute of Technology, Guwahati
4. Indian Institute of Space Science and Technology, Thiruvananthapuram
5. Indian Institute of Technology, Bombay
6. National Institute of Technology, Calicut
7. Technology Education & Research Integrated Institutions Kurukshetra
8. Guru Gobind Singh Indraprastha University, New Delhi





# POLYMER ENGINEERING

## Introduction

The course in Polymer (plastics and rubbers) technology deals with materials and the application which ranges from construction, packing, decorative items to automobiles, aircrafts etc.

## Courses

- B.E. Polymer Science and Chemical Technology
- B.E. Polymer Technology
- B. Tech Polymer Science and Technology
- M.E. Polymer Technology
- M. Tech Polymer Science and Technology
- Ph. D Polymer Science and Technology

## Eligibility

10+2 with biology, maths and chemistry. For IITs, It is mandatory to qualify in the Joint Entrance Examinations (J.E.E). The duration of this course is 4 years

## Institutes/Universities

1. Indian Institute of Technology (IIT), New Delhi
2. Birla Institute of Technology, Mesra, Ranchi
3. Sant Longowal Institute of Engineering and Technology, Sangrur, Punjab
4. Cochin University of Science and Technology (CUSAT), Kochi
5. Maharashtra Institute of Technology (MIT), Pune
6. National Institute of Technology, Calicut
7. Delhi College of Engineering, New Delhi
8. University College of Engineering, Thodupuzha, Kerala
9. VRS & YRN College of Technology, Department of Oil Technology, Chirala, Andhra Pradesh





# ROBOTICS

## Introduction

Robotics is an inter-disciplinary course and students of mechanical engineering, electrical engineering, instrumentation engineering or computer engineering can join this field. The Robotics and artificial intelligence are interlaced and there is option at the Master's level.

## Eligibility

10+2 or equivalent education in Science stream

## Courses

- Bachelor of Technology
- Bachelor of Engineering
- (In mechanical engineering, electrical engineering, instrumentation engineering or computer engineering)
- M. Tech in Robotics and M Tech in Artificial Intelligence
- M. Tech in Robotics Engineering
- M. Tech in Automation and Robotics
- Diploma in Robotics

## Institutes/Universities

1. IISC Bangalore
2. University of Hyderabad
3. IIT, Mumbai, Chennai, Kharagpur, Delhi, Kanpur
4. Birla Institute of Technology and Science., Pilani/Mesra
5. National Institute of Technology (NIT), Silchar





# TEXTILE ENGINEERING

## Introduction

Textile engineering courses deal with the application of scientific and engineering principles to the design and control of all aspects of fibres, textiles, and apparel processes, products, and machinery.

## Eligibility

10th / 12<sup>th</sup> for Diploma in Textile Engineering

10+2 with PCM for B.E. / B. Tech.

B. E. /B. Tech for M. Tech / Post Graduate Diploma in Textile

## Courses

- 3 year Diploma course in Textile Engineering/ Textile Chemical Processing Technology (DCTPT), Textile Colour and Design (DTCD)
- B.E./ B. Tech in Textile Engg. / Textile chemistry / Textile Technology / Textile plant Engineering.
- M. Tech in Textile / Post Graduate Diploma in Textile Chemical Processing (PGDTCP)

## Institutes/Universities

1. Government SKSJ Technological Institute, K R Circle, Bengaluru
2. College of Textile Technology, Behrampur, Murshidabad
3. Institute of Textile Technology, Cuttack, Odisha
4. Indian Institute of Technology, Delhi
5. Government Central Textile Institute, Kanpur.
6. South Gujarat University, College of Engineering & Technology, Surat, Gujarat.
7. University of Bombay, Department of Chemical Technology, Mumbai, Maharashtra





# AGRICULTURAL SCIENCE

## Introduction

Agricultural Science is the study of production of food and other goods i.e. plants and living organisms in a systematic and controlled manner. This field incorporates management of farms, horticulture and agri-business activities. It also gives insights of agrarian scenario of the country and its agriculture industry that manufacture agricultural machinery and equipment and is involved in procurement and processing of agri-products. It also studies banking activities for financing and developing farms, research and development for the purpose of improving capacity and quality of farm products and so on.

Agricultural science students can specialize in agricultural production and livestock.

## Certificate/Diploma Courses

Eligibility - A pass in the Higher Secondary Examination (10+2) or equivalent with related subjects

- Diploma in Agriculture
- Diploma in Horticulture

## Eligibility

10+2 or equivalent having passed with Physics, Chemistry, Biology/Math or Agriculture stream

## Institutes/Universities

1. CCS Agriculture University, Hisar, Haryana
2. University of Agricultural Sciences, Bangalore
3. Acharya N G Ranga Agricultural University, Guntur, Andhra Pradesh
4. Andhra University, Visakhapatnam
5. Kerala Agricultural University (KAU), Thrissur, Kerala
6. Tamil Nadu Agricultural University, Coimbatore
7. Dr R Prasad Central Agriculture University, Samastipur, Bihar

## UG/PG Courses

- Bachelor of Science (Honours) in Agriculture
- Bachelor of Fisheries Science (B.F.Sc.)
- B. Sc. Food Technology
- B. Sc. Horticulture
- B. Tech Biotechnology
- B. Tech. Agriculture Engineering
- Master of Science in Agriculture
- MBA Agri-business
- M.Sc. Agricultural Biotechnology
- Master of Science in Agriculture
- Doctor of Philosophy in Agriculture







# BIOLOGICAL SCIENCE

## Introduction

Biological Science studies life and living organisms, their life cycles, adaptations and environment. There are various fields of study under the biological sciences including biochemistry, microbiology and evolutionary biology.

## Eligibility

10+2 with Physics, Chemistry and Biology as compulsory subjects.

## Courses

- Bachelor in Biological Science
- Master in Biological Science
- PhD in Biological Science

## Institutes/Universities

1. Indian Institute of Science Education and Research (IISER), Pune, Maharashtra.
2. Indian Institute of Science Education and Research (IISER), Kolkata, West Bengal.





# BIOTECHNOLOGY

## Introduction

Biotechnology is utilizing the sciences of biology, chemistry, physics, engineering and information technology to develop tools and products to apply to living cells/organisms.

### Genetic Engineering

Genetic engineering is the study of knowledge obtained from genetics to alter the reproduction and hereditary processes of organisms. It deals in cloning, in-vitro fertilization, species hybridization or direct manipulation of the genetic material itself by the recombinant DNA technique.

### Plant Tissue Culture

Functions in the field of in-vitro regeneration and propagation of plantlets, a Tissue Culture specialist may also be involved in plant germ plasma conservation.

### Plant Genetics

Activities to improve plants by evolving new horticultural varieties through hybridization, this work is generally carried out in the laboratories.

## Eligibility & Courses

For B. Sc. Courses: Pass in 10+2 with PCM. (Biology)

For M. Sc. Courses: Bachelor's degree under 10+2+3 in Physical, Biological, Agricultural, Veterinary, Fishery Sciences, Pharmacy, Engineering, Technology or Medicine (MBBS)

For M. Sc. (Agriculture) Biotechnology/M.Sc. Animal Biotechnology: Bachelor's degree in agriculture, horticulture, forestry, fishery, Veterinary Sciences or Agricultural Engineering.

For M Tech Biotechnology : B. Tech degree - in chemical Engineering, Biochemical Engineering, Industrial Biotech (BE), Leather technology, Pharmaceutical Technology, Food Technology, B. Pharma, and Dairy Technology or Master's Botany, Zoology Bio-chemistry, Microbiology, Genetics, Physiology, Pharmacology and Biophysics.

## All India Biotechnology Entrance Examination

Jawaharlal Nehru University, New Delhi conducts the Combined Entrance examination for admission to M.Sc./M.Sc. (Agri.)/M.V.Sc.(Animal) Biotech/M. Tech Biotechnology in association with other universities in India. Candidates who have done their B. Sc. in physical, biological, agricultural, veterinary and fishery sciences, pharmacy, engineering, technology or medicine can take up this examination.

### Education Abroad

The Ministry of Science and Technology awards the Biotechnology Overseas Associateship for advanced research in molecular biology, microbial genetics, gene therapy, virology, tissue culture and so on.





# COMPUTER APPLICATIONS

## Introduction

The Computer Applications course is designed to provide the student with the opportunity to expand and apply technological knowledge.

## Eligibility

10+2 or equivalent

## Courses

- Diploma in Computer Application
- Bachelor in Computer Application
- Master in Computer Application

## Institutes/Universities

1. University of Madras, Chennai
2. Chhatrapati Shahuji Maharaj University, Kanpur,
3. University of Allahabad, Allahabad
4. University of Mumbai, Mumbai
5. National Institute of Electronics & Information Technology, New Delhi
6. Delhi University, Delhi

Note: Computer Application Courses are also offered by various private institutions. Therefore, aspirants are advised to ensure the recognition and approved courses prior to admission.





# COMPUTER SCIENCE

## Introduction

Computer science is one of the known courses among engineering aspirants which aims on the basic elements of computer programming and networking. This course includes knowledge of design, implementation and management of information system of both hardware and software. It deals principally with the theory of computation and design of computational systems.

## Eligibility

10+2 with (PCM) and followed by Entrance Test

## Courses offered by NIELT (DOEACC)

- A level – Advanced diploma: equal to Bachelor's degree
- B level – equal to MCA degree
- C level – equal to M. Tech

## Courses

### UG Courses

- B.E. / B. Tech (Comp. Science, Info. Science, Info Tech)
- B. Sc. (CS, IT, IS)
- BCA.

### PG Courses

- ME / M. Tech
- MCA.
- M. Sc. (CS, IT)
- PGDIT, PGDCA, etc.

### Doctoral Courses

- Ph. D

## Institutes/Universities

1. Indian Institute of Technology Bombay, Mumbai
2. Indian Institute of Technology Delhi
3. Indian Institute of Technology Kanpur
4. Indian Institute of Technology Kharagpur
5. Delhi Technological University, Delhi
6. Indian Institute of Technology Banaras Hindu University, Varanasi
7. Indian Institute of Technology
8. Indian School of Mines Dhanbad, Jharkhand
9. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# CYBER SECURITY

## Introduction

Cyber Security deals with study of possible cyber threats and harms – technical, financial or personal. The course equips the professional to deal with many types of cybercrimes such as copyright breach, hacking, illegal mass-surveillance, computer virus, virtual pestering, identity threats, phishing etc.

The interest in technology, innovative ideas, problem solving prowess, logic & concept are expected from students who wish to join this new and challenging field.

## Courses

B. Tech in Cyber Security /B. Tech in Computer Science or IT followed by an M. Tech in either Information Security or Cyber Security

## Eligibility

10+2 Science Stream

## Institutes/Universities

1. IIT Hyderabad
2. IIT Delhi
3. IIIT Guwahati
4. IIIT Allahabad
5. AIACT&R, DELHI





# EARTH SCIENCES/GEOGRAPHY

## Introduction

Earth Sciences deals with study and research in various fields and concepts of Geology, examination and utilization of natural resources their management, sustenance and conservation.

Earth Sciences/Geography, studies climatic/ weather conditions of different regions with periodic developments, their effects, natural resources like water, minerals survey, earth and ocean characteristics and its science, air, rain, clouds and rivers aspects, monitoring of geographical environments, forests and weather forecast. The special study are in this field like Economic & Political Geography, Human Geography, Cultural Geography, Environment and Natural Resources Studies. The other aspects of Geography include Geomorphology, Climatology, Oceanography, Meteorology, Cartography, Geographic Information Systems and other allied areas.

## Eligibility

10+2 or equivalent

## Courses

- BA with Geography as a subject
- BA Honors (Geography)
- Integrated M. Tech. (Geophysical Technology)
- Integrated M. Tech. (Geological Technology)
- M. Tech. Earth Sciences
- M. Sc. (Applied Geology)
- M. Phil. Geology
- M. Phil. Geoinformatics
- Ph.D. Geology
- MA Geography
- M. Sc Geography
- M. Sc., M.Phil. & Ph. D
- M. Sc. Geology (Five Year Integrated)
- M. Sc. Geology (Two Year CBCS)
- PG Diploma in Petroleum Geoscience
- PG Diploma in Remote Sensing and GIS

## Institutes /Universities

1. Indian Institute of Technology, Roorkee, Uttarakhand
2. Indian Institute of Science, Bangaluru
3. Bangalore University, Bangaluru
4. Kurukshetra University, Kurukshetra, Haryana,
5. University of Delhi
6. MD University, Rohtak, Haryana
7. Annamalai University, Annamalainagar, Tamil Nadu
8. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# ENVIRONMENTAL SCIENCES

## Introduction

Environmental science is the area of study that deals with the interactions of the physical, chemical, and biological elements of the environment and impact of these upon the living beings and the environment. Generally, environmental science is considered to be only natural science whereas it includes the study of social science and humanities also. Therefore, it is an interdisciplinary course.

## Eligibility

10+2 examination or equivalent with Physics, Chemistry and Biology.

## Courses

- Bachelor's Degree
- Master's Degree
- Ph. D (Environmental Science)  
10+2

## Institutes/Universities

1. Allahabad University, Allahabad, Uttar Pradesh.
2. Delhi University, Delhi
3. School of Environmental Sciences, Jawaharlal Nehru University
4. Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh.
5. Banaras Hindu University, Varanasi, Uttar Pradesh.
6. Bangalore University, Bengaluru.
7. Barkatullah University, Bhopal.
8. Central University of Haryana, Mahendragarh,
9. Central University of Jammu, Samba
10. Central University of Jharkhand, Ranchi
11. Dr. B. R. Ambedkar Open University , Telangana

Scientists to hunt microbes beneath Antarctic ice sheet  
An international team of scientists will begin the new year hunting for microbes and other living specimens in an unexplored lake far beneath the surface of the Antarctic ice sheet. The expedition, known as SALSA (Subglacial Antarctic Lakes Scientific Access), hopes to shed light on what kind of life can survive in such remote regions and serve as an on-Earth comparison for habitats deep inside Mars or on the ice-covered moons of Jupiter and Saturn.

(Source: zee news and  
PTI Jan 05, 2019,)





# FISHERY SCIENCES

## Introduction

Fisheries is a multidisciplinary course that includes the biological study of life, habits and breeding of various species of fish, It involves catching, processing, marketing and conservation of fish.

## Eligibility

10+2 with biological science as one of the subjects.

## Courses

- Bachelor of Fishery Science
- Bachelor of Science in Fisheries
- Bachelor of Fisheries Science in Fish Biology
- Bachelor of Fisheries Science in Aquaculture
- Master of Fisheries Science

Apart from the B.F.Sc & M.F.Sc. various fisheries institutes offer vocational training courses related to fisheries and allied disciplines.

## Institutes/Universities

1. Andhra University,
2. Barkatullah University, Bhopal, Madhya Pradesh.
3. G.B. Pant University of Agriculture, Pant Nagar, Uttaranchal.
4. Goa University,
5. Gujarat Agricultural University,
6. Imphal Fisheries Training College, Manipur.
7. Manipur University,
8. Marathwada University, Aurangabad, Maharashtra.
9. Osmania University, Hyderabad, Andhra Pradesh.







# FLORICULTURE / HORTICULTURE

## Introduction

Horticulture/Floriculture is one of the parts of agriculture that study the art, science, technology, and process of growing plants. It involves fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, flowers, the cultivation of medicinal plants, seaweeds and non-food crops such as grass and ornamental trees and plants.

## Courses

- Diploma in Horticulture
- B.Sc. in Horticulture
- M. Sc. in Horticulture
- Ph. D in Horticulture

## Eligibility

10+2 with physics, chemistry and maths/biology/agriculture.

## Institutes/Universities

1. Indian Agricultural Research Institute (IARI), Delhi.
2. Kerala Agricultural University
3. University of Agricultural Sciences, Bengaluru.
4. Allahabad Agricultural Institute, Allahabad
5. Tamil Nadu Agricultural University, Coimbatore
6. Calcutta University, Kolkata
7. Acharya N.G. Ranga Agricultural University, Hyderabad.
8. Chaudhary Charan Singh Haryana Agricultural University (CCSHAU), Hisar, Haryana.
9. G B Pant University of Agriculture and Technology (GBPUA&T), Uttarakhand





# FOOD TECHNOLOGY

## Introduction

Food Technology is the study of food science in manufacturing safe, wholesome and nutritious food products. Training in Food technology gives adequate knowledge regarding the quality analysis of raw materials, packaging standards and methodology.

## Eligibility

10+2 education completed in the Science stream, from a recognized educational Board. Chemistry, Mathematics, Physics, Biology/ Home Science as the main subjects at the 10+2 level.

## Courses

- Diploma Course
- Bachelor in Science
- Master in Science

## Institutes/Universities

1. Central Food Research Technological Research Institute, Karnataka
2. University of Delhi
3. Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra
4. University of Calcutta, West Bengal
5. University of Madras, Chennai, Tamil Nadu
6. Jadavpur University, Kolkata, West Bengal
7. Andhra University, Visakhapatnam, Andhra Pradesh
8. University of Bombay, Mumbai, Maharashtra
9. Mahatma Gandhi University, Kottayam, Kerala
10. Manipur University, Imphal, Manipur





# FORESTRY

## Introduction

Forestry is the study of sustainably managing and preserving forested resources for the benefit of humans.

It studies ecology, environmental and resource protection, such as wood, water, wastelands, endangered species, clean air, biodiversity and ecosystems in forests.

## Courses

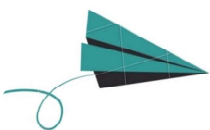
- B. Sc. Forestry / Wildlife
- M. Sc. Forestry / Wildlife / Forest Economics
- M. Sc. Wood Science and Technology.
- Post Graduate Diploma in Forest Management (PGDFM)

## Eligibility

10+2 with Physics, Chemistry, Maths/Biology.

## Institutes/Universities

1. University of Agricultural Sciences, Bengaluru, Dharwad.
2. Agriculture College & Research Institute, Coimbatore.
3. College of Horticulture Forestry, Solan, Himachal Pradesh.
4. Bhim Rao Ambedkar University, Agra, Uttar Pradesh.
5. Gujarat Agricultural University, Sardar Krushinagar Gujarat.
6. Orissa University of Agriculture & Technology, Bhubaneshwar, Odisha
7. Punjab Agricultural University, Ludhiana, Punjab.
8. Jawharlal Nehru Krishi Vishwavidyalaya, Jabalpur, Maharashtra.





# OCEANOGRAPHY

## Introduction

The course in Oceanography deals with the physical and biological aspects of the ocean and covers the study of ecosystem, geological and geophysical aspects of oceans; ocean waves currents, plate tectonics etc.

## Courses

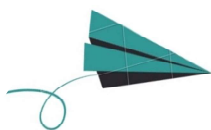
- M. Sc. Oceanography and Coastal Area Studies.
- M. Sc. Oceanography
- M. Phil. Chemical Oceanography
- M. Tech Ocean Technology
- M. Sc. Marine Biology

## Eligibility

10+2 with Physics, Chemistry , Maths/Biology and followed by B. Tech. or B.Sc. in Zoology/ Botany/ Chemistry/ Fishery Science / Earth Science/ Physics/ Agriculture/ Microbiology/ Applied Sciences or equivalent or related subjects.

## Institutes/Universities

1. Indian Institute of Information Technology Madras, Chennai, Tamil Nadu.
2. Indian Institute of Information Technology Kharagpur, West Bengal.
3. Alagappa University, Karaikudi, Tamil Nadu
4. University of Science and Technology, Cochin, Kerala.
5. Goa University,
6. Mangalore University, Karnataka.





# Mathematics & Statistics

## STATISTICAL SCIENCES

### Introduction

Statistics is the study data and navigating common problems for drawing correct conclusions. This course is related to the field such as areas as financial markets, sports, engineering, healthcare, marketing & sales, election campaigns, space, natural disasters, population studies, accidents, insurance, and deaths – statistics. Statistics deals with interpretation and aggregation of large complex data into simpler data. It develops from the field of probability in mathematics. Statistics also

### Eligibility

10+2 pass with Maths & English.

### Courses Offered

- Diploma in Applied Maths.
- Diploma in Maths with computer programming, etc.
- Bachelor of Statistics (Hons)
- Bachelor of Mathematics (Hons)
- Bachelor's in Statistical Methods.
- Bachelor's in Applied Mathematics & Statistics, etc.
- Masters in Statistics
- Masters in Mathematics.
- M. Tech. in Quality & Reliability and operations research.
- Masters of Science (MS) in Quantitative Economics
- P.G. Dip in Applied Maths (Industrial maths)
- M. Phil (Mathematics)
- Ph. D in Mathematics

### Institutes/Universities

1. Chennai Mathematical Institute, Chennai.
2. College of Engineering, Chennai.
3. Indian Institute of Technology, Kharagpur
4. Indian Statistical Institute, Kolkata (HQ)
5. Osmania University, Hyderabad.
6. Tata Institute of Fundamental Research, Mumbai.
7. The Institute of Mathematical Sciences (IMSC), Chennai.
8. The Mehta Research Institute of Mathematics & Mathematical Physics (MRI), Allahabad.
9. University of Hyderabad, Hyderabad.
10. SavitriBai Phule Pune University





# VETERINARY SCIENCES

## Introduction

Veterinary Science is a subject related to the treatment of different animals from domestic pets to farmyard animals. The course content mixes a group of topics like anatomy, animal behaviour, animal husbandry, cell biology, nutrition, physiology, genetics, epidemiology, pharmacology, infectious diseases, pathology and parasitology.

## Courses

- Bachelor of Veterinary Science & Animal Husbandry
- Bachelor of Veterinary Science
- Master of Veterinary Science

## Eligibility

10+2 with biology, chemistry and physics and to qualify the entrance test conducted by Veterinary Council of India.

## Institutes/Universities

1. Indian Veterinary Research Institute, Uttar Pradesh
2. College of Veterinary Sciences, CCS Haryana Agricultural University, Hisar, Haryana
3. Bombay Veterinary Science College, Mumbai
4. College of Veterinary Science & Animal Husbandry (Anand Agricultural University), Anand, Gujarat
5. Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Uttar Pradesh.
6. Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur
7. Post Graduate Institute of Veterinary & Animal Sciences (PGIVAS), Akola





# Wildlife Biology

## Introduction

Wildlife Biology involves field work, observing animals in their natural habitats in addition to working in labs and in diverse environments.

## Courses

- B. Sc. in Wild Life Biology
- M. Sc. in Wild Life Biology

## Eligibility

10+2 with Physics, Chemistry and Biology.

## Colleges/Institutions

1. Institute of Environment Education and Research, Bharati Vidyapeeth (Deemed to be University), Pune, Maharashtra.
2. National Centre for Biological Sciences, Bengaluru, Karnataka.





# Zoology

## Introduction

A course in Zoology analyses animals and their interactions with ecosystems. It includes the classification and study of physical characteristics, diets, behaviours of animals' species.

## Courses

- B. Sc. in Zoology
- M. Sc. in Zoology
- M. Phil. in Zoology
- Ph. D. in Zoology
- Note, the above courses are offered with the other similar subjects also.

## Eligibility

10+2 with Physics, Chemistry and Biology.

## Institutes/Universities

1. Faculty of Science, Deptt. of Zoology, BHU, Varanasi, Uttar Pradesh.
2. Dr Ambedkar Government Arts College (Autonomous), Chennai, Tamil Nadu.
3. Guru Nanak College (Autonomous) Chennai, Tamil Nadu.
4. Bangalore University, Karnataka.
5. University of Allahabad, Uttar Pradesh.
6. Sikkim University, Gangtok
7. Tezpur University, Assam.







# AYURVEDA – BAMS

## Introduction

Ayurveda, an ancient system of medicine evolved approximately around 600 BC in India and has many followers across the world today. Ayurveda makes use of natural – plants, herbs and minerals to produce medicines. Also included in course of Ayurveda are body massage, meditation and basic dietary plans which according to many practitioners have no side effects as it is based on non-invasive treatment practices.

Ayurveda has been recognized by World Health Organization.

## Courses

- Certificate course in Ayurvedic Cosmetics  
Duration: 1 year
- Diploma in Ayurvedic Pharmacy (D.Pharma)  
Duration: 2 years
- Bachelor of Ayurvedic Medicine & Surgery or "Ayurvedacharya" (B.A.M.S.)
- Bachelor in Ayurvedic Pharmacy (B.Pharma)  
Duration: 4 years
- Master in Ayurvedic Pharmacy (M.Pharma)  
Duration: 2 years
- Master of Science in Medicinal Plants (M.Sc. in Medicinal Plants)  
Duration: 2 years
- Masters in Ayurveda (MD)
- PG Diploma in Ayurvedic Drug Standardisation  
Duration: 2 years

## Eligibility

10+ 2 with Physics, Chemistry & Biology

## Institutes/Universities

1. All India Institute of Ayurveda, New Delhi.
2. Ayurvedic & Uunani Tibbia College & Hospital, New Delhi.
3. Faculty of Ayurveda, Institute of Medical Sciences, BHU, Varanasi, Uttar Pradesh.
4. Rajiv Gandhi Govt. Post Graduate Ayurvedic Kangra, Himachal Pradesh.
5. Govt. Akhandanand Ayurvedic College, Ahmedabad, Gujarat.
6. Govt. Ayurvedic College & Hospital, Lucknow, Uttar Pradesh.
7. Govt. Ayurvedic College & Hospital, Jagatganj, Varanasi, Uttar Pradesh.
8. National Institute of Ayurveda, Jaipur, Rajasthan.
9. College of Ayurveda of Rajasthan Ayurvedic University, Jodhpur, Rajasthan
10. Govt. Rishikul Ayurvedic College & Hospital, Hardwar, Uttarkhand.
11. J. B. Roy Govt. Ayurvedic Medical College & Hospital, Kolkata, West Bengal.





# DENTAL - BDS

## Introduction

Dentistry deals with teeth, gums, hard and soft tissues of the oral cavity. Today, dentistry is not restricted to treating just tooth decays but also includes cosmetic dental procedures to improve a person's appearance.

The introduction of new fields like periodontal (care of gums and the diseases), oral pathology (diagnosis for diseases that affect the mouth) and orthodontics (straightening and aligning teeth and jaws) are also part of the BDS course.

## Courses

- Bachelor of Dental Surgery (BDS)
- Master in Dental Surgery (MS)

## Eligibility

10+2 with PCB

A student needs to appear in NEET to get admission in Bachelor in Dental Surgery Course.

## Institutes/Universities

1. Maulana Azad Dental College and Hospital, New Delhi
2. Faculty of Dentistry, Jamia Millia Islamia, New Delhi.
3. Govt. Dental College, Medical Campus, Rohtak
4. Govt. Dental College and Hospital, Afzalganj, Hyderabad.
5. Govt. Dental College and Hospital, Vijayawada.





# HOMEOPATHY

## Introduction

Homeopathy is practiced worldwide for healing, curation and therapeutic purposes. It is an all-inclusive practice of treatment wherein a patient is treated while assessing all aspects of symptoms and health problems for restoration of overall health. In this unique therapeutic system of treatment, certain natural substances are diluted and used in various forms for treatment of many ailments. The courses are designed to give insight about Homeopathy medicine, its foundation, analysis, evaluation, surgery etc. and encompass both clinical and pre-clinical subjects with proper emphasis on theoretical as well as hands on practical sessions.

## Courses

- Bachelor of Homeopathic Medicine & Surgery (BHMS)
- MD (Homeopathy)

## Eligibility

For BHMS - 10+2 or equivalent exam with Physics, Chemistry and Biology.

For MD (Hom.)- B.H.M.S.

## Institutes/Universities

1. JSPS Govt. Homoeopathic Medical College, Hyderabad
2. Nehru Homoeopathic Medical College and Hospital (NHMC&H) Delhi (University of Delhi)
3. Dr. Gururaju Government Homoeopathic Medical College and Hospital,, Andhra Pradesh
4. Dr. NTR University of Health Sciences Vijayawada Andhra Pradesh
5. The Tamil Nadu Dr. M.G.R. Medical University, Chennai





# NATUROPATHY

## Introduction

Naturopathy is a science of healing through nature and relies upon the study and balancing the five basic elements of nature known as Water, Air, Earth, Fire and Aether.

Yoga is combined with Naturopathy to add value to both these systems. Courses are available in both Naturopathy as well as in combination of both Naturopathy & Yoga.

## Courses

- Foundation Course in Yoga Science for Wellness (FCYScW)
- Diploma in Yoga Science (D.Y.Sc.) for Graduates
- B.Sc. (Yoga Science) (for 10+2 Science stream students) in the Biology.
- Bachelor of Naturopathy & Yogic Sciences (BNYS)
- M.D.Yoga & Naturopathy

## Eligibility

Entry level - 10th

10 + 2 or equivalent with Science stream

## Institutes/Universities

1. Morarji Desai National Institute of Yoga, New Delhi
2. Banaras Hindu University, Varanasi
3. Dr. NTR University of Health Sciences Vijayawada Andhra Pradesh
4. National Institute of Naturopathy, Pune
5. Govt. Yoga And Naturopathy Medical College, Chennai
6. The Tamil Nadu Dr. M.G.R. Medical University, Chennai





# PHARMACY

## Introduction

Pharmacy is the study of drugs which includes instructions on use, selection, composition, effects and side effects of drugs. It also includes development of new drugs, ascertaining of quality standards, dispensing of drugs and improvement of existing drugs.

## Eligibility

10+2 with science

## Courses

- Diploma in Pharmacy
- Bachelor's in Pharmacy
- Master's in Pharmacy
- Eligibility: B. Pharma
- M. Tech (Pharm.)
- MBA (Pharm.)
- MS (Pharm.)
- Ph. D. in Pharmacy

## Institutes/Universities

1. National Institute of Pharmaceutical Education and Research, Mohali
2. Jamia Hamdard, New Delhi
3. Annamalai University, Chennai
4. Department of Pharmaceutics, IIT BHU, Varanasi
5. Maharshi Dayanand University, Rohtak
6. Andhra University, Vishakhapatnam
7. National institute of Pharmaceutical Education and Research, Hyderabad
8. Delhi Institute of Pharmaceutical Sciences and Research, New Delhi



# SIDDHA



## Introduction

Siddha is one of the oldest Indian systems of medicine which has its roots in south India and is popular worldwide. Therapeutic in nature, the system works on the belief that the human body is made of five basic elements namely, earth, water, fire, air and sky and the treatment deals with balancing these elements for a healthy and disease-free life. The Central Council of Indian Medicine controls the education of the Siddha system in the country.

## Courses

### Siddha Courses

- Bachelor of Siddha Medicine & Sciences – BSMS
- MD - Siddha Medicine

## Eligibility

10+2 with Physics, Chemistry and Biology/Botany

## Institutes/Universities

1. The Tamil Nadu Dr. M.G.R. Medical University, Chennai
2. Government Siddha Medical College, Arumbakkam, Chennai
3. Government Siddha Medical College, Tirunelveli, Tamilnadu
4. Sri Sai Ram Siddha Medical College, Sriperumputhur, Tamil Nadu
5. Kerala University of Health Sciences, Thrissur, Kerala





# UNANI

## Introduction

Unani means Greece where the Unani System of Medicine originated. BOKHRATH (Hippocrates) founded it in 460 BC approximately and is called as Father of Unani Medicine. Unani medicine works on the basis of 'humoral theory' (relating to four bodily fluids) where each humour denotes a precise disposition in a human being. In Unani medicine, the plants, minerals and animal products are used for healing purposes and for restoration of a person's original humoral constituents. Unani System is one of internationally accepted treatments of medicine in present day also.

## Eligibility

For BUMS – 10+2 or equivalent certification with Science

After BUMS/Graduation

AIAPGET -2018 can apply for admission to MD/MS (Unani)

## Courses

- Bachelor of Unani Medicine and Surgery (BUMS)
- Kamil-e-Tob-o-Jarahat
- Mahir-e-Tibb
- MD/MS/PG (Unani)

## Institutes/Universities

1. National Institute of Unani Medicine, Bangaluru
2. Delhi University (Faculty of Ayurvedic & Unani Medicine)
3. A & U Tibbia College & Hospital, Delhi
4. Rajiv Gandhi University of Health Sciences, Bangaluru, Karnataka
5. Dr NTR University Of Health Sciences, Vijayawada, AP
6. Kaloji Narayana Rao University of Health Sciences, Telangana, Warangal
7. Aligarh Muslim University, Aligarh





# ANTHROPOLOGY

## Introduction

Anthropology is the study of humans, past and present in their cultural and biological conditions. This combination sets anthropology apart from other humanities and natural sciences. In simple terms, anthropology deals with determining what humans are, how they evolved, and how they differ from one another.

## Courses

- B. A. / B. Sc.
- M. A. / M. Sc.
- M. Phil.
- Ph. D

## Eligibility

10+2 with Physics, Chemistry, Biology and/ or Mathematics as main subjects.

## Colleges/Institutes/Universities

1. Banaras Hindu University, Varanasi
2. AU - Andhra University Visakhapatnam
3. Panjab University, Chandigarh
4. Dibrugarh University, Assam
5. Guwahati University, Guwahati
6. Karnataka University, Dharwad
7. Sambalpur University, Orissa
8. Institute of Archaeology, New Delhi,

The name of Shri Mysore Narasimbachar Srinivas also known as M. N. Srinivas is highly respected in contemporary sociology/social anthropology







# ARCHAEOLOGY

## Introduction

The course is a subfield of anthropology. It exposes students to reconstruct extinct cultures from the artefacts as it studies the ancient and recent human past through material remains.

## Eligibility

10+2 with History

## Courses

- Bachelors of Arts in Ancient Indian Culture.
- Bachelors of Arts in Ancient Indian History and Archaeology
- Bachelors of Arts Archaeology and Museology
- Master of Arts in Archaeology
- Master of Arts in Museology

## Institutes/Universities

1. Institute of Archaeology, New Delhi
2. National Museum Institute, New Delhi
3. Delhi Institute of Heritage Research and Management, New Delhi
4. MSG University, Baroda
5. University of Madras, Chennai
6. Tamil University, Thanjavur

Shri Braj Basi Lal is one of the well-known Indian archaeologists, He was the Director General of the Archaeological Survey of India (ASI) and a recipient of the Padma Bhushan Award in 2000.

Shri Braj Basi Lal developed interest in archaeology and in 1943, became a trainee in excavation under a British archaeologist, Mortimer Wheeler, and worked at sites such as Taxila, Harappa and Sisupalgarh in Odisha.





# ART RESTORATION

## Introduction

Art restoration is a specialized course which involves inspection, documentation, treatment and precautionary care of the art objects.

## Eligibility

Pass 12<sup>th</sup> class in any stream

## Courses

- Bachelor's degree in art history, studio art, anthropology, archaeology
- M. A. in art history, studio art, anthropology, archaeology
- PhD in Art Conservation

## Institutes/Universities

1. Jiwaji University, Gwalior, Madhya Pradesh
2. Kurukshetra University, Kurukshetra, Haryana
3. Mysore University, Mysuru, Kanataka
4. University of Madras, Chennai, Tamil Nadu
5. National Museum, New Delhi
6. University of Allahabad, Allahabad, Uttar Pradesh





# CURATION

## Introduction

A curator is a manager or overseer of a cultural heritage institution such as gallery, museum, library, or archives in charge of content and institution's collections and involved with the interpretation of heritage material.

## Courses

- M.A.
- Ph.D

## Eligibility

10+2 and Bachelor's degree in art, history, archaeology, museum studies or a related field

## Institutes/Universities

1. National Archives of India, Director General of Archives, National Archives of India (School of Archival Studies), New Delhi
2. National Museum Institute, History of Art, Conservation and Museology (Deemed to be University), New Delhi





# EDUCATIONAL/VOCATIONAL SCHOOL COUNSELLOR

## Introduction

The course deals in techniques of counselling individuals and providing group educational and vocational guidance services, crisis intervention for students, how to resolve behavioural, academic, and other problems.

## Eligibility

Graduate/ Master's degree (Social Work /Psychology/Child Development/Community Resource Management/ Development Communication Extension/Nursing/Special Education/ M. Ed. / B. Ed. with experience of teaching/working with children. The candidates applying for admission should be proficient in English.

## Courses

- Advanced Diploma in Child Guidance and Counselling
- Diploma Course in Guidance and Counselling
- Certificate Course in Counselling and Guidance
- BA /MA in psychology, child development or social work

## Institutes/Universities

1. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)
2. Ambedkar University, Delhi
3. Dr. B.R. Ambedkar Open University, Telangana
4. University of Delhi
5. National Institute of Public Cooperation and Child Development, New Delhi
6. National Council of Educational Research and Training, New Delhi





# MONUMENTS AND SCULPTURE RESTORATION

## Introduction

Restoration (cultural heritage), is the process through which trained professionals clean, repair and restore a damaged artwork. These types of art work could include paintings to sculptures to even manuscripts. These ancient artefacts, monuments and paintings are maintained and are given a new life by art conservators and art restoration or by Monuments and Sculpture restoration experts.

## Courses

- Bachelor's Degree- in archaeology, ancient and medieval history, world history, studio art, fine art, art history, or a related field.
- M. A. in Conservation, Preservation and Heritage Management
- Ph. D

## Eligibility

10+2 with History

## Institutes/Universities

1. National Research Laboratory for Conservation of Cultural Property - NRLC, Lucknow
2. Delhi Institute of Heritage Research and Management, New Delhi.
3. Sinhgad College of Architecture, Pune





# MUSEOLOGY

## Introduction

Museology is the branch of knowledge concerned with the study of the purposes and organisation of museums with emphasis on development of museums and in evolving fresh methods and techniques to improve their working. It covers activities such as preservation, restoration and excavation of ancient monuments and the art material.

## Courses

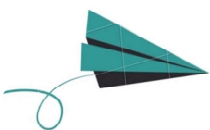
- PG Diploma in Museology (for some students who complete M.S.C./ M.A. /B.A History Archaeology)
- MA in Museology

## Eligibility

10+2

## Institutes/Universities

1. National Museum of Institute of History of Art (Delhi),
2. Bhartiya Kala Nidhi, Institute of Archaeology, ASI, New Delhi.
3. Aligarh Muslim University, Aligarh, Uttar Pradesh
4. Barkatullah University.





# PHYSIOTHERAPY

## Introduction

Physical therapy (or physiotherapy), is an allied health care profession used to prevent and treat many disabilities and diseases. Physiotherapists deal with the remediation of impairments and disabilities to restore physical mobility and help in maintaining quality of life. The therapists use the techniques of examination, evaluation, diagnosis and physical intervention.

## Courses

- Bachelor of Physiotherapy (BPT)
- Master of Physiotherapy (MPT)
- Post Graduate Certificate Course in Sports Physiotherapy (PGCSP)

## Eligibility

10+2 passed or equivalent examination with physics, chemistry, biology

Selection: The admission to institutes is through entrance examination. There is a Common Entrance Test (CET) for Bachelor of Physiotherapy (BPT). Admission is based mainly on CET scores.

## Institutes/Universities

1. Pt. Deendayal Upadhyaya Institute For The Physically Handicapped, New Delhi,
2. School of Physiotherapy, SSG Hospital, Baroda, Gujarat.
3. Nizam's Institute of Medical Sciences, Hyderabad, Telangana.
4. Indian Institute of Health Education & Research, Patna, Bihar
5. Govt. Medical College (GMC), Nagpur, Maharashtra





# REHABILITATION PSYCHOLOGY

## Introduction

Rehabilitation psychology course is related to psychological principles for healing of patients who have disability due to injury or illness. The focus of this course is to address behavioural and mental health issues related to the injury or chronic condition that leads to disability and promote behaviour for positive adaptation to disability.

## Courses

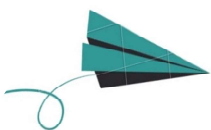
- Post Graduate Diploma in Rehabilitation Psychology
- Ph. D

## Eligibility

Bachelor's Degree in Psychology or should have studied psychology as one of the subjects from a recognized University.

## Institutes/Universities

1. Banaras Hindu University, Varanasi
2. Department of Psychology - University of Delhi
3. Ambedkar University (New Delhi)
4. Tata Institute of Social Sciences, Mumbai
5. Gautam Buddha University, Greater Noida, Gautam Budh Nagar
6. Amity Institute Of Psychology And Allied Sciences, Noida
7. The Maharaja Sayajirao University of Baroda, Vadodara
8. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)
9. Dr.B.R. Ambedkar Open University , Telangana







# REHABILITATION THERAPY

## Introduction

Rehabilitation Therapy is a method which enables a person to recover from functional limitations after an injury, an illness or addiction. Rehabilitation assists people to restore their mental, emotional, physical, social and vocational wellbeing. Mental illness is also recovered with the assistance of rehabilitation. Physical and occupational therapy are also included in rehabilitation therapy.

## Courses

- Certificate in Rehabilitation Counselling
- Diploma in Special Education (Hearing Impaired)
- Diploma in Special Education (Visually Handicapped)
- Diploma in Special Education (Mental Retardation)
- Bachelor of Science (Hons.) Physical Therapy
- Bachelor in Mental Retardation
- Bachelor of Education (Hearing Impaired)
- Bachelor of Education (Visually Handicapped)
- Bachelor of Special Education (Hearing Impairment)
- Master of Rehabilitation Therapy
- Master of Occupational Therapy-Rehabilitation
- Master of Science in Rehabilitation with Persons of Multiple Disabilities

## Eligibility

10+2 with science subjects. The selection is usually made on the basis of entrance examinations conducted by the institute/university concerned. The duration of the bachelor's degree course is 3-4 years.

## Institutes/Universities

1. National Institute for the Mentally Handicapped (NIMH), Secunderabad, Telangana
2. Pt. Deendayal Upadhyaya National Institute for the Physically Handicapped, New Delhi
3. All India Institute of Physical Medicine and Rehabilitation, Mumbai, Maharashtra
4. All India Institute of Speech & Hearing, Mysore, Karnataka
5. Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, Maharashtra
6. Post Graduate Institute of Medical Education & Research, Chandigarh





# SOCIAL WORK

## Introduction

Social work course is the study to prevent and alleviate the social problems in the society like social injustice, unemployment, destitution, etc. which has damaging effects and providing support to individuals through removal of barriers amongst the individuals, groups & communities.

## Eligibility

For BA Course: 10+2

For PG course: Graduate in any stream preferably with sociology & psychology as options during graduation.

Generally an All India level test is conducted by Universities followed by interview. Some Institutes offer admissions on the basis of marks obtained in last qualified exam.

## Courses

- BSW / BA – Bachelor's in Social Work.
- MSW – Master's in Social Work.

## Institutes/Universities

1. Tata Institute of social sciences, Mumbai.
2. Xavier institute of social science, Ranchi
3. Delhi School of Social work, Delhi.
4. Bangalore University. Bangalore.
5. Osmania University, Hyderabad
6. Mangalore University, Univ. Campus, Mangalagangothri
7. Madurai Kamaraj University, Madurai. University of Kerala, Thiruvananthapuram
8. Jamia Millia Islamia, New Delhi
9. Loyola College, Chennai





# SPECIAL EDUCATOR

## Introduction

Special education is the method of interventions designed to help individuals with special needs to help them achieve a higher level of personal self-sufficiency and success. This involves individually planned and systematically monitored teaching procedures, equipment and materials.

## Courses

- Diploma in Special Education
- B.Ed. (Special Education)
- M.Ed. (Special Education)
- M. Phil. (Special Education)

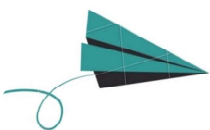
## Eligibility

Pass 10+2 from any subject for diploma courses.

Bachelor Degree in any discipline from any recognized University for higher courses.

## Institutes/Universities

1. National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD), Chennai, Tamil Nadu
2. National Institute for the Mentally Handicapped, Secunderabad, Telangana
3. Indian Institute of Health Education & Research, Patna, Bihar





# SPEECH LANGUAGE AND HEARING

## Introduction

A paramedical and rehabilitation course, it involves studying the anatomy, physiology, pathology (diseases or disorders), of hearing and speech and rehabilitation. Speech Language is the science of verbal and symbolic expression of thoughts.

## Courses

- Diploma in Hearing, Language & Speech.
- Bachelor of Audiology & Speech Language Pathology
- Master of Audiology & Speech Language Pathology
- Post Graduate Certificate Course in Auditory Verbal Therapy

## Eligibility

10 + 2 pass or its equivalent with Physics, Chemistry, Biology & Mathematics

## Institutes/Universities

1. All-India Institute of Medical Sciences, New Delhi
2. All India Institute of Speech and Hearing (AIISH), Mysuru
3. Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
4. Manipal College of Allied Health Sciences (MCOAHS) Karnataka
5. Indian Institute of Health Education and Research, Patna, Bihar
6. Patna and MERF Institute of Speech and Hearing, Chennai
7. Institute of Speech and Hearing, Bangaluru





# LAW

## Introduction

Law is the study of rules, conduct or procedures for instituting and maintaining a disciplined society. This may be established by customs, agreements or authority and enforced through a set of institutions.

## Eligibility

Pass 10+2 with any subject for integrated course of 05 years.

Bachelor's Degree from recognized University for BA-LLB in three years.

## Courses

- Integrated course - BA LLB / BSc LLB / BSc LLB
- Bachelor of Law (LLB), Bachelor of General Laws (BGL)
- Masters of Laws (LLM), Master of Comparative Laws (MCL)
- Doctor in Law (LLD)

## Institutes/Universities

1. National Law School of India University (NLSIU), Bangaluru
2. National Academy of Legal Studies and Research University of Law (NALSAR), Hyderabad
3. National Law University (NLU), Jodhpur
4. National Law Institute University (NLIU), Bhopal
5. West Bengal National University of Juridical Sciences (NUJS), Kolkata
6. The Indian Law Institute (NLI), New Delhi
7. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# ADVERTISING

## Introduction

Advertising chiefly targets at creating demand, encourages marketing, and establishes a direct contact between manufacturers and consumers. The entire purpose of advertising is to apprise and influence public to purchase products and services. Advertising is done through TV, Internet, Newspapers, magazines, outdoor Publicity.

## Eligibility

For certificate courses- 10+2

For graduate degree in mass communication- 10+2.

For post graduate diploma courses - graduation.

## Courses

- Diploma / PG Diploma in Advertising & Photography
- Diploma / PG Diploma in Advertising.
- PG Diploma in Marketing Communications Management
- PG Diploma in Advertising & Marketing Communication
- Integrated BA in Advertising, Sales Promotion & Sales Management (after 10+2)
- MBA – Advertising, Public Relations, Sales Marketing

## Institutes/Universities

1. Indian Institute of Mass Communication, JNU Campus, New Delhi.
2. Xavier Institute of Communications, Mumbai.
3. Annamalai University, Chennai ([www.annamalaiuniversity.ac.in](http://www.annamalaiuniversity.ac.in))
4. Guru Jambheshwar University, Haryana ([www.gju.ernet.in](http://www.gju.ernet.in))
5. Kurukshetra University, Haryana ([www.kuk.ernet.in](http://www.kuk.ernet.in))
6. Madurai Kamaraj University, Madurai ([www.mkuniversity.org](http://www.mkuniversity.org))
7. Punjabi University, Patiala ([www.universitypunjabi.org](http://www.universitypunjabi.org))





# MEDIA AND MASS COMMUNICATION

## JOURNALISM

### Introduction

Journalism includes preparation of written, visual, or audio material envisioned for dissemination through public media with reference to factual, ongoing events of public concern. It deals with broadcast world such as TV and Radio, Web journalism, Print Journalism etc. There are also courses in particular areas of journalism like sports, television, photo, press law etc.

### Eligibility

For Post graduate degree courses: BA in journalism.

There is also PG diploma in journalism after graduation.

### Courses

- B.J (Bachelor of Journalism)
- B.J.M.C (Bachelor of Journalism and Mass Communication)
- B.A - J.M.C (Bachelor of Arts in Journalism and Mass Communication)
- B.C.J (Bachelor of Communication and Journalism)
- B.M.M (Bachelor of Mass Media)
- B.J (Hons) (Bachelor of Journalism (Honours))
- B.A - Mass Communication (Bachelor of Arts in Mass Communication)

### Institutes/Universities

1. Kamala Nehru College for Women, Delhi
2. Indian Institute of Journalism and New Media, Bengaluru
3. Lady Shri Ram College for Women, Delhi
4. IIMC, New Delhi
5. Xavier Institute of Communication, Mumbai
6. Film and Television Institute of India, Pune

Do you know?

A number of the popular Indian journalists, TV anchors, writers, and media personalities hold degree and post-graduate diploma in Journalism from Jamia Milia Islamia University and the Indian Institute of Mass Communication.





# MASS COMMUNICATION

## Introduction

Mass communication is the course related to how individuals and entities relay information through mass media to large segments of the population at the same time. It usually relates to newspaper, magazine, book publishing, as well as radio, television and film, as these mediums are used for disseminating information, news and advertising.

Mass communication course in a collective term has a series of streams like- news-reading, reporting, columnist, Anchoring, radio jockey, public-relations, advertising, production, acting, web journalism, social media etc.

## Courses

- B.A. (Mass Communication)
- B.B.A (Mass Media Management)
- PG Diploma.(Mass Communication & Journalism)
- M.A. (Communication and Journalism)
- M.A.(Mass Communication & Journalism)
- M.A.(Mass Communication)
- M. B.A. (Mass Media Management)
- Ph. D in Mass

## Eligibility

The selection process conducted by various colleges includes interviews, group discussion, and written tests for a particular media or mass communication course at a university,

10 +2 for undergraduate course

## Institutes/Universities

1. Anna Malai University, Chennai
2. Madurai Kamraj University, Chennai
3. Symbiosis Institute of Journalism & Mass Communication, Pune
4. Department of Communication & Journalism, University of Poona
5. Film & Television Institute of India (FTII), Chennai & Kolkata
6. Assam University, Silchar, Assam.
7. University of Kolkata
8. Aligarh Muslim University, U.P.
9. Banaras Hindu University, U.P.
10. Guru Nanak Dev University
11. Punjab University
12. Kurukshetra University, Haryana
13. Jawahar Lal Nehru University, New Delhi
14. Guru Gobind Singh Indraprastha University, New Delhi
15. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)
16. Sardar Patel University, Gujarat
17. Nagpur University







# PUBLIC RELATIONS

## Introduction

Public relations is related to corporate communication and image building. The field is involved in promoting the organization goals and sustain a good reputation in public through communication. It helps to build relationships with stakeholders through various sources for news/ information dissemination.

## Courses

- MA (Advertising and Public Relations)
- PG Diploma in Advertising and Public Relations
- MBA (Advertising and Public Relations)

## Eligibility

Graduation in any discipline from recognized University

## Institutes/Universities

1. Indian Institute of Mass Communication, Delhi
2. Madurai Kamraj University, Tamilnadu
3. Makhanlal Chaturvedi National University of Journalism, Madhya Pradesh
4. Devi Ahilya Vishwavidyalaya, Indore
5. Guru Jambheshwar University, Haryana
6. Kurukshetra University, Haryana
7. Aligarh Muslim University, Aligarh
8. Punjabi University, Patiala





# ART DIRECTION

## Introduction

Art Direction includes work such as creation and management of visual style and images in magazines, newspapers, and product packaging, movies and television productions. Artworks, illustrations or layouts are created for various purposes and used in advertising, newspaper and magazines, theatre, motion picture and video games industries.

## Eligibility & Courses

- B.Sc. (Cinema) + Diploma in Direction
- Post Graduate Diploma in Art Direction and Production Design

## Institutes/Universities

1. Film And Television Institute Of India, Pune
2. Satyajit Ray Film and Television Institute, Kolkata
3. Center for Research in Art of Film and Television, Delhi
4. National School of Drama, Delhi





# CHOREOGRAPHY

## Introduction

Choreography is an artistic opportunity to express one's personality through the creation of dance. The course includes designing and direction of routines used in dances and performances. The course gives an opportunity to create, edit, and practice with professionalism and provide entertainment for audiences.

## Course

- B.A in art and dance
- B.A. in Dance
- B.P.A. in Dance - Kathak
- M.A. in Dance

## Eligibility

12<sup>th</sup> or equivalent exam in any stream

## Institutes/Universities

1. Pune University (UNIPUNE) - SPPU (Savitribai Phule Pune University)
2. University of Mysore
3. Sangeet Natak Academy, New Delhi
4. Banaras Hindu University, Varanasi
5. Natya Institute of Kathak and Choreography, Bangaluru
6. Andhra University Visakhapatnam





# DIRECTION

## Introduction

Direction deals with creative aspects of production such as creating, shaping and controlling artistic and dramatic facets of a film/drama, visualization of script or screenplay, selection of setting/ locations and special costume effects. It comprises guidance for technical crew/actors in creation and development of a concept or visualization.

## Eligibility

Bachelor's Degree in any discipline

## Institutes/Universities

1. National School of Drama, Delhi
2. Film and Television Institute of India, Pune

## Courses

- Bachelor's degree program in fine arts, film, or a related field.
- Three Year Post Graduate Diploma in Direction & Screenplay Writing
- Three-year full-time Diploma Courses in Dramatic Arts
- \*Three Year Post Graduate Diploma in Art Direction and Production Design





# FILM/DRAMA PRODUCTION

## Introduction

In Film/Drama production, is a joint activity of making movies, television shows, and sometimes commercials. The work includes camera, lighting, editing, sound and set design. This field deals in identifying design styles for sets, locations, graphics, props, lighting, camera angles and costumes, while working closely with the director and producer.

## Eligibility

One can get a degree (Bachelor's or Master's), or pursue diploma courses, the duration of which may vary between 3 months and 1 year.

## Courses

- PG Diploma in Film, Television and Digital Video Production
- One Year Post Graduate Diploma in Feature Film Screenplay Writing
- 3-year (full time), Postgraduate Programme in Cinema (specialization offered in Direction & Screenplay Writing)
- Three Year Post Graduate Diploma in Direction & Screenplay Writing
- Post Graduate Diploma in Art Direction and Production Design
- One Year Post Graduate Certificate Course in TV Direction
- Three-year full-time Diploma Courses in Dramatic Arts

## Institutes/Universities

1. Film And Television Institute Of India, Pune
2. Satyajit Ray Film and Television Institute, Kolkata
3. Centre for Research in Art of Film and Television, Delhi
4. National School of Drama, Delhi
5. Jawaharlal Nehru Architecture and Fine Arts University, Hyderabad
6. College Of Fine Arts, Hyderabad.





# FINE ARTS

## Introduction

Fine Arts is the study of creative disciplines like sculpture, painting, and drawing. This course includes variety of mediums—paper, metal, clay, photographic film.

## Courses

- Diploma in Fine Arts
- Bachelor in Fine Arts
- Master of Fine Arts
- PhD in Fine Arts

## Eligibility

Pass 10+2 with any subject

## Institutions/Universities

1. College of Art, University of Delhi, Delhi
2. Faculty of Visual Arts - Banaras Hindu University
3. Sir J. J. Institute of Applied Art Mumbai
4. University of Mumbai
5. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# PERFORMING ARTS

## Introduction

Performing Arts is a form of artistic expression through Acting or Music performances done live for audiences, some of these include ballet, puppetry, mime.

## Eligibility

It is better to visit the web sites for academic requirements as these vary. Some institutions base admission on auditions also.

## Courses

- Certificate in Performing Arts
- BFA (Bachelor of Fine Arts)
- BVA (Bachelor of Visual Arts)
- B. Cr.A (Bachelor of Creative Arts)
- B.P.A. (Performing Arts)
- Ph. D

## Institutes/Universities

1. Delhi College of Arts, Delhi
2. Faculty of Visual Arts, Banaras Hindu University, Varanasi
3. Maharaja Sayajirao University Of Baroda, Vadodara
4. Faculty Of Fine Arts, Jamia Millia Islamia, New Delhi
5. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# VOCAL AND INSTRUMENTAL

## Introduction

Music is an integral part of Films, Art and Theatre. The study of music includes theoretical understanding of Music and its history, interpretation of music, composition, voice instructions and much more.

## Eligibility

10+2 Examination with Music as one of the subjects

B.A. with Music /B.A. (Hons.) in Music for PG Course

## Courses

- BA Honours in Hindustani Music- Vocal/ Instrumental (Sitar/Sarod/ Guitar /Violin/ Santoor) or Karnataka Music
- Vocal/Instrumental (Veena/ Violin) or Percussion Music (Tabla/Pakhawaj)
- MA (Music) /MPhil/PhD (Music)

## Institutes/Universities

1. University of Delhi, Delhi
2. Kurukshetra University, Kurukshetra
3. Shriram Bharatiya Kala Kendra, New Delhi
4. The Kalakshetra diploma in Carnatic music (By Kalakshetra Foundation, Autonomous body under Ministry of Culture, Govt. of India), Chennai,







# VISUAL ART AND COMMUNICATIONS

## ANIMATION

### Introduction

Animation is an exciting medium consisting of images and objects embedded to appear as moving pictures. As per traditional animation, images are drawn or painted manually on transparent celluloid sheets to be photographed and displayed on film.

The fundamentals of visual communication, Iconography, Image processing tools, Computer painting, Storyboarding techniques, creating artwork are all included in animation.

### Courses

- Certificate courses
- Diploma courses
- Bachelor's Degree courses

### Eligibility

10<sup>th</sup> passed or equivalent for Certificate Courses

10+2 or equivalent examination for Diploma & Degree course

### Institutes/Universities

1. National Institute of Design, Ahmedabad, Gujarat.
2. National Institute of Film and Fine Arts, Kolkata, West Bengal.
3. St. Xavier's College, Kolkata, West Bengal.
4. M G R Government Film and Television Training Institute, Chennai, Tamil Nadu.

**Note:** Animation Courses are also being offered by private institutions. Therefore, aspirants are advised to ensure the recognition and approved courses being offered by the Private Institutes/Colleges in this field prior to admission.





# CINEMATOGRAPHY

## Introduction

Students pursuing these courses are able to learn about the fundamental tools of cinematography, basic level shooting and are able to work on various digital cameras. The cinematography is a perfect blend of creative integration with the direction which enables development of unique process of film making.

## Institutes/Universities

1. Film and Television Institute of India, Pune
2. Satyajit Ray Film & Television Institute, Kolkata
3. Xavier Institute of Communications, Mumbai
4. Film and Television Institute of Hyderabad, Srinagar Colony, Hyderabad

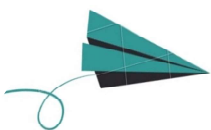
## Eligibility & Courses

After 10th / 12th

- Diploma in Cinematography
- Diploma in Film Making
- Bachelor of Film and Television Production

After Graduation-

- PG Diploma in Film, Television and Digital Video Production
- Post Graduate Certificate Course in Electronic Cinematography (TV)





# COMMUNICATION DESIGN

## Introduction

Communication design is a mixed combination between design and information. The course relates to devising strategies for brand building, increasing sales and presence by attracting audience. Market research and problem – solving are also part of the learning process.

## Courses Offered

- Bachelor in Communication Design
- Graduate Diploma Programme in Communication Design
- B.A (Hons.) Communication Design

## Eligibility

10+2

## Institutes/Universities

1. National Institute of Design, Ahmedabad
2. Indian Institute of Art & Design, Delhi

**Note:** Communication designing courses are also being offered by various reputed private institutions. Therefore, aspirants are advised to ensure the recognition and approval of courses prior to admission.





# DESIGN

## Introduction

The field of Design courses is vast and includes product design, textile design, ceramic, interior design, fashion design, fashion retailing, gem and jewellery design. These may also include graphics design, animation, film design and video programming, footwear design, accessories, furniture design.

## After graduation

- B.Des./M.Des.
- MA (Interior Design)

## Eligibility

After 10+2

## Institutes/Universities

1. National school of design, Ahmedabad
2. National institute of fashion Technology, New Delhi
3. Footwear Design and Development Institute (FDDI), Noida, Uttar Pradesh
4. Government Polytechnic, Mumbai
5. National Institute of Design, Ahmedabad
6. National institute of fashion Technology, New Delhi
7. IIT Mumbai





# GRAPHIC DESIGNING

## Introduction

The study of visual illustration having combination of thoughts and messages by mixing pictures, texts, symbols is known as Graphic Designing. It is actually the mode of communication through visual depictions. All the latest and modernized techniques in Graphic Designing such as grouping of typography, visual arts and the page layout techniques are used in the process.

## Courses

- Graduate Diploma Programme in Graphic Design
- BA Animation and Graphic Design
- Advanced Diploma in Graphic Design and Web Design
- Diploma in Graphic Designing

## Eligibility

10+2 with any stream

## Institutes/Universities

1. National Institute of Design, Ahmedabad
2. IDC, IIT Bombay, Mumbai
3. Delhi College of Art, Delhi
4. Department of Design, IIT, Delhi

**Note:** Graphic Design Courses are also being offered by various reputed private institutions. Therefore, aspirants are advised to ensure the recognition and approved courses being offered by the Private Institutes/Colleges in this field prior to admission.





# PHOTOGRAPHY

## Introduction

Photography is an art of storytelling through still photographs, used as recorded events and images of people, places, events, and objects. The course is available in fields like Press photography, Commercial, Industrial, Scientific, Medical, Forensic, Business Photography, Wildlife Photography, Fashion Photography and Portrait work etc. are covered.

## Courses

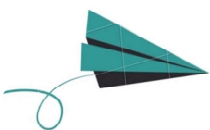
- Bachelor of Fine Arts Specialization  
Course in Visual Communication
- MFA

## Eligibility

10+2

## Institutes/Universities

1. College of Arts, Delhi
2. National Institute of Photography, Mumbai
3. <http://www.focusnip.com/>
4. The Indian Institute of Digital Art and Animation, Kolkata <http://idaaindia.com/>





# ACTUARIAL SCIENCES

## Introduction

The discipline of Actuarial science applies mathematical and statistical methods to weigh risk in insurance, finance and other industries and occupations. Actuarial science comprises interrelated subjects, including mathematics, statistics, finance, economics and computer science.

## Courses

- PG Diploma in Actuarial sciences (PGDAS)
- International Post Graduate Diploma in Life Insurance (IPGDLI)
- International Post Graduate Diploma in General Insurance (IPGDGI)
- International Post Graduate Diploma in Risk Management (IPGDRM)

## Actuarial exams by IAI

Stage 1: Core Technical (CT)

Stage 2: Core Application (CA)

Stage 3: Specialist Technical (ST)

Stage 4: Specialist Application (SA)

## Eligibility

Actuarial Common Entrance Test (ACET exam) - 10+2 or equivalent exam with English. After ACET, apply at [www.actuariesindia.org](http://www.actuariesindia.org) to become a student member of IAI.

IPGDLI, IPGDGI, IPGDRM- Graduate Degree in any discipline (including Engg and Management) from a recognised university / Institute candidates with professional qualifications like CA, ICWAI, CS are also eligible.

PGDAS- B.Com. (With Statistics) or B.Sc.(With Maths/Statistics) or B.Com. /B.Sc. in Actuarial Science or BCA or B.Sc. (Computer Science)

## Institutes/Universities

1. VNS Gujrat University, Surat
2. IIRM Hyderabad
3. Institute of Actuaries of India, Mumbai





# BANK MANAGEMENT

## Introduction

Bank Management includes sectors such as Investment Banking, Corporate Finance Banking, Personal, Retail and Rural Banking, Treasury Management etc. The course structure is related to fund raising through bonds and securities in the capital market, giving financial advice, plans and raising the capital or fund.

## Courses

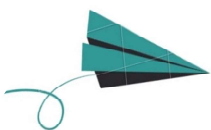
- Bachelor in Finance & Investment
- B.Com/M.Com or BBA /MBA (Finance)
- Financial Accounting
- Financial Management
- International Corporate Finance Management
- Accounting Portfolio Management
- Risk Management

## Eligibility

10+2 with accounts, maths and economics

## Institutes/Universities

1. Alagappa University, Karaikudi, Tamil Nadu
2. Gulbarga University, Karnataka
3. University of Madras, Chennai
4. Bharathidasan University, Tiruchirappalli, Tamil Nadu
5. Annamalai University, Annamalai Nagar, Tamil Nadu
6. Bangalore University, Bengaluru, Karnataka







# BUSINESS ADMINISTRATION

## Introduction

The administration of a business is interchangeable with the performance or management of business operations, it includes the efficient organization of people and other resources so as to direct activities toward common goals and objectives.

## Eligibility

10+2 or equivalent qualification

B.Com, B.A., B.Sc., BE/ B. Tech etc. However, subjects such as commerce, economics and mathematics would prepare a candidate better for pursuing business studies.

## Courses

- Bachelor of Business Administration (BBA),
- Bachelor of Business Management (BBM),
- Bachelor of Business Studies (BBS)
- MBA: Post graduate degree in management
- PGDM (Post Graduate Diploma in Management/ Business administration)
- Post Graduate Diploma in Business Administration (PGDBA)
- Diploma in Business Administration (DBA)
- Advance Diploma in Business Administration (ADBA)
- Advance Diploma in International Hotel and Business Administration

## Institutes/Universities

1. All IIMs, including Ahmadabad, Bangalore, Calcutta, Kozhikode, Lucknow, Indore
2. Faculty of Management studies, Delhi
3. IIFT Delhi
4. Department of Management Studies, IIT Madras,
5. IIT Roorkee, Kanpur
6. Indian Institute of Management Shillong
7. Shailesh J Mehta School of Management, Indian Institute of Technology, Bombay
8. Smt. Indira Gandhi Government First Grade College for Women
9. Sir M V Govt Arts and Commerce College
10. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# BUSINESS MANAGEMENT

## Introduction

Business management is the process of the planning, co-ordination and control of a business and to establish a value-creating organization.

## Courses

- BBA/MBA in Sales/Marketing/HR/Finance
- BA (Economics)
- B.Com/M.Com

## Eligibility

10+2 pass with any discipline or equivalent

Graduation for Post-Graduation degree/diploma in management

CAT/CMAT/other entrance Tests organized by various institutes/Universities/Business Schools after graduation

## Institutes/Universities

1. All Indian Institute of Management (IIMs)
2. Guru Gobind Singh Indraprastha University, Delhi
3. Birla Institute of Technology and Science, Pilani
4. Motilal Nehru National Institute of Technology Allahabad
5. Jamia Millia Islamia, New Delhi
6. Faculty of Management Studies, University of Delhi, Delhi
7. Banaras Hindu University, Varanasi
8. Birla Institute of Technology, Mesra





# COSTS AND WORKS ACCOUNTS

## Introduction

A course in Cost and Work Accounts work would cover structuring business policy of a company to give a forecast for projects on the basis of past and present financial performances.

## Courses

- Foundation Course
- Intermediate Course (Part I)
- Intermediate Course (Part II)
- Final Course (Part III)
- Final Course (Part IV)

## Eligibility

### For Foundation Course

10/10+2 pass as equivalent thereto or has passed NDC Examination held by AICTE or any State Board of Technical Education, or the Diploma in Rural Service Examination conducted by the National Council of Higher Education.

### For Intermediate Course

Passed 10+2 and Foundation Course of the Institute of Cost Accountants of India/ Graduation in any discipline other than Fine Arts/ Foundation (Entry Level) Part I Examination of CAT of the Institute/ Foundation (Entry Level) Part I Examination and Competency Level Part II Examination of CAT of the Institute

## Institutes/Universities

1. The Institute of Cost Accountants of India, Bangaluru, Karnataka
2. Jamal Mohamed College, Tiruchirappalli, Tamil Nadu
3. Tiruchirappalli Chapter of ICWAI, Tiruchirappalli, Tamil Nadu
4. Visakhapatnam Chapter of ICWAI, Visakhapatnam, Andhra Pradesh
5. Trivandrum Chapter of ICWAI, Thiruvananthapuram, Kerala
6. Mysore Chapter of ICWAI, Mysuru, Karnataka
7. Madurai Chapter of ICWAI, Madurai, Tamil Nadu





# CHARTERED ACCOUNTANCY

## Introduction

Chartered Accountancy plays key role in formulation of financial policies & investment plans of a company, and to make business plans for sustenance and growth of a company.

## Admission Process

The applications are invited 1 year in advance for these courses. The examinations are held twice a year – May & November.

1. Enrolment for the CA Foundation course after 10+2.
2. Enrolment for Intermediate course (at this stage even graduates can join directly)
3. Register as an articled clerk with a practicing CA for undergoing practical training and as a student with Board of Studies – ICAI for theoretical education.
4. Intermediate exams after 12 months of training.
5. Final exams after completing Intermediate.
6. Membership of ICAI after Passing Final Exams
7. Professional Practicing CA.

## Eligibility

Completion of Foundation Course and pass in Foundation Exam or, Commerce graduates with more than 50% or, Non-commerce graduates with mathematics as one of the subjects and 60% of total marks or, Non-commerce graduates other than mathematics with minimum 55%.

Duration: 12 months

## Courses

- CA - Foundation Course  
Eligibility: 10+2  
Duration: 10 months
- CA - Intermediate Course

## Institutes/Universities

1. The Institute of Chartered Accountants of India , New Delhi





# CHARTERED FINANCIAL ANALYST

## Introduction

CFA Program gives an insight in corporate finance, investment management and financial services. The Program is divided into three levels. Preliminary; inter and final level. It is recognized as a Postgraduate Diploma in Financial Analysis by AICTE. It is a self-study programme and the Institute supplies study material to the enrolled students. There are also courses like Diploma in Basic Finance (DBF) and Merchant Banking and Financial Services (MBFS).

## Courses

- Regular CFA Program, Duration
  - Graduates in any discipline. Students appearing for final year examinations are also eligible.
- Accelerated CFA Program,
  - First Class Graduates, Postgraduates, Working Executives and Professionals like CA/CWA/CS/MBA/CAIIB.
- CFA Foundation Course:
  - Degree college students interested in pursuing professional certification program such as CFA Program.

## Eligibility

Degree and Engineering college students (any discipline).

The candidates who are successful in the admission test and those who are exempted from passing the admission test are enrolled for the Programme. A student is allowed a maximum period of three years to complete the preliminary level of the programme and a maximum period of seven years to complete the entire programme.

## Exemption

The MBAs, Post Graduate Diploma Holders in Management, CAs, CWAs, CSs, CAIIBs, First class graduates/post- graduates and senior executives with ten years of service in the public sector or the private sector can seek exemption from the admission test.

## Admission Test

The admission to both the programs is through a basic test. The admission test aims at testing the aptitude of the candidates for professional studies in financial analysis. Hence the quantitative reasoning ability of the candidate is tested. The admission test is held four times in a year in the months of January, April, July and October.

## Other Programs

1. CPA Program (The Certified Public Accountant Program)
2. C-RIM Program (The Certified Risk & Insurance Manager Program)
3. The CTM Program (The Certified Treasury Manager Program)
4. The CIB Program (The Certified Investment Banker Program)
5. The CPM Program (The Certified Portfolio Manager Program) (International CIIA Qualification from ACIIA, London)
6. Global Strategic Management (GSM) Program





# EVENT MANAGEMENT

## Introduction

An Event is a program, function, seminar, exhibition, show, award ceremony, marriage or even family party. The activities and assignments in event management involve event marketing, Costs and Budgets available, advertisements, reviews, demos and post

## Institutes/Universities

1. National Institute of Event Management, Mumbai.
2. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)
3. Indian Institute of Event Management, Mumbai.
4. University of Mumbai, Mumbai.

## Eligibility

10+2 with good knowledge of English

## Practical Training

Most of the institutes offer Students practical training by giving them live projects which include all kinds of small and large events.

## Courses

- Certificate Course in Event Management (CEM)
- Diploma in Event Management (DEM)
- Graduate in Management/Event Management
- Post-Graduate Diploma in Event Management (PGDEM)





# HOSPITAL MANAGEMENT

## Introduction

Hospital Management is related to various aspects such as purchase of equipment, human resource, and promotion of health services, economic planning, and budget allocation for hospital services.

## Eligibility

- XII pass or equivalent with Biology.
- For some institutes an MBBS degree is the criteria for admission and for certain courses a Bachelor's degree (Any stream) is required.
- Eligibility criteria may vary for different colleges.

## Courses

- Bachelor of Hospital Management (BHA)
- Master of Hospital Management (MHA)
- M.Phil. – Hospital & Health Management systems
- Ph. D. programme in Health Services Management

## Institutes/Universities

1. Tata Institute of Social Sciences, Osmanabad, Maharashtra.
2. Birla Institute of Technology and Science, Pilani, Rajasthan.
3. All India Institute of Medical Sciences, New Delhi
4. Punjab University, Chandigarh
5. Tata Institute of Social Sciences, Dept. of Health Services. Mumbai
6. Armed Forces Medical College in Pune
7. Devi Ahilya Vishwavidyalaya, Indore
8. Nizam Institute of Medical Science in Hyderabad
9. Kasturba Medical College Manipal.
10. Sher-i-Kashmir Institute of Higher Medical Sciences, Jammu and Kashmir
11. Madurai Kamaraj University, Madurai
12. Indian Institute of Social Welfare and Management, Kolkata
13. Distance Education
14. Institute of Health Care Administration, Chennai.

Note: There are many other institutes which offer correspondence course in Hospital Management.





# HOTEL MANAGEMENT

## Introduction

Hotel management involves the study of House-Keeping, Food & Beverage Service, Food Production, Dietetics and Nutrition, Tourism Management, Catering Technology, Accommodation Operations & Management, Culinary Arts and Kitchen Administration (Chef Training), Bartending, front office etc.

Entry & Selection process

As per Govt. of India policy, NCHM joint Entrance Exam 2019 will be conducted by “National Testing Agency” Govt. of India for admission to “3 years 6 semesters B.Sc. (HHA) Program” in more than 63 IHMs (Govt. as well as Private) under the academic umbrella of NCHMCT.

## Courses

- Diploma in Food & Beverages
- Diploma in Front Office
- Diploma in House Keeping
- Diploma in Dietetics and Nutrition
- Diploma Front Office and Tourism Management
- Diploma in Teaching of hotel Management
- Diploma in Hotel Management & Catering Technology
- Diploma in Culinary Arts and Kitchen Administration (Chef Training).
- Bachelor in Hotel Management
- BSc in Hospitality and Hotel Administration
- BSc Hotel Management
- MSc in Hospitality Administration
- PG Diploma in Accommodation Operations & Management

## Eligibility

10+2 or equivalent exam for diploma and graduation courses

## Training in Hotels as apprentice

Some hotels take candidates as apprentices after 12th and some experience in the hotel industry or after graduation.

## Institutes/Universities

1. National Council for Hotel Management and Catering Technology, New Delhi.
2. Delhi Institute of Hotel Management, New Delhi
3. Dr Ambedkar Institute of Hotel Management, Chandigarh
4. Institute of Hotel Management, Catering Technology & Nutrition at Srinagar, Chandigarh, New Delhi, Lucknow, Ahmedabad, Bhopal, Goa, Mumbai, Chennai, Bangalore, Hyderabad, Bhubaneswar, Kolkata, Gwalior.
5. International Institute of Hotel Management at Kolkata
6. Army Institute of Hotel Management and Catering Technology at Bangalore
7. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)







# HUMAN RESOURCE MANAGEMENT

## Introduction

Human resource management deals with the management of workforce in any organisation. It is responsible for the selection, training, assessment, and rewards of employees, along with ensuring compliance of labour laws.

HR also includes strategies & initiatives like mergers and acquisitions, talent management, succession planning, industrial and labour relations training in Personnel Management, Employee Welfare, and Industrial Relations.

## Eligibility

For Graduation

10+2

PG:

Three year BA/BBA and an entrance exam such as CMAT/CAT/XAT or ATMA. The duration for this course is 2 years.

## Courses

- Certificate Courses in Human Resource Management
- Bachelor of Business Administration in Human Resource Management
- Master of Business Administration in Human Resource Management
- Master of Human Resource Development
- Master of Business Administration in Personnel Administration
- Post Graduate Program in Human Resource Management
- Diploma Courses in Human Resource Management
- Executive Diploma Programme in Human Resource Management

## Institutes/Universities

1. All IIMs
2. Andhra University, Andhra Pradesh
3. Indian Institute of Social Welfare & Business Management, West Bengal
4. Institute of Management Technology, West Bengal
5. Annamalai University
6. Tamil Nadu University of Delhi, Delhi
7. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# INSURANCE

## Introduction

Insurance assures compensation or reimbursement of loss of ensured life and assets of individual or groups or companies covered under life insurance and general insurance. Life insurance relates to humans lives whereas general insurance covers all the living and non-living things.

## Courses

- Certificate course on "Compliance, Governance and Risk Management in Insurance"\*
- Executive Diploma in Insurance Management
- B Com/M.Com/MBA
- Post Graduate Certificate in Health Insurance
- Post graduate diploma in insurance marketing.

## Eligibility

For Graduation

10+2

For post-graduation/ PG Diploma

Three years Bachelor's Degree or equivalent in any discipline

\*Associate/ Fellow Members of Institute of Company Secretaries of India or Associate/ Fellow Members of Insurance Institute of India

## Institutes/Universities

1. The Insurance Institute of India , Mumbai
2. University of Bombay, Mumbai.
3. Indira Gandhi National Open University, New Delhi
4. Institute of Actuaries of India, Navi Mumbai
5. The college of Vocational Studies, Delhi University, New Delhi.





# LOGISTICS & SUPPLY CHAIN MANAGEMENT

## Introduction

Supply chain consists of various activities that take place between the production and distribution of materials. Logistics and supply chain management includes different sections of supply chain management like materials purchase, management of transport, warehousing, packaging and distribution, order processing, inventory management.

## Eligibility

UG:

10+2.

PG:

BA/BBA.

## Courses

Certificate, Diploma and PG Diploma courses:

- Certificate course in logistics Management.
- Diploma in Cargo and Courier Management.
- Diploma in logistics Management.
- PG Diploma in logistics and supply chain management
- These include both class room and distance education programs.

## Institutes/Universities

1. National Institute of Export Management, Chennai.
2. Indian Institute of Material Management Bengaluru, Kolkata.
3. Confederation of Indian Industries Institute of logistics.
4. Indian Institute of Management – Indore (PG Diploma)
5. Centre for logistics & Integrated Material Systems, Hyderabad.





# MANAGEMENT

## Introduction

Management is a vital component of an organization which determines its success or failure to a great extent. There are courses available in Marketing research, Marketing Management, HR management, Finance Management and verticals such as advertising, Operations research analysis.

There are several other specialized areas like Information Technology, Hospitality, Tourism and Pharma Management and more.

## Courses

- BBA/MBA
- Master of Marketing Research (MMR).
- Post graduate diploma or degree after finishing graduation.
- M .Tech, M. Sc and Graduate diploma, for which individual entrance examinations are conducted by the colleges/institutes offering the programmes.
- Ph. D

## Eligibility

10+2, can be entry level qualification for under graduate courses like BBA.

CAT/CMAT/ other entrance Tests organized by various institutes/Universities/Business Schools after graduation

## Institutes/Universities

1. All IIM, Ahmedabad, Bangalore, Calcutta, Kozhikode, Lucknow, Indore
2. Faculty of Management studies, Delhi
3. IIFT Delhi
4. Department of Management Studies, IIT Madras,
5. IIT Roorkee, Kanpur
6. Indian Institute of Management Shillong
7. Shailesh J Mehta School of Management, Indian Institute of Technology, Bombay
8. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# BACHELOR OF ARTS

## Introduction

Bachelor of Arts is a three year degree course after +2 in which mostly 4 or 5 subjects are taught such as Hindi, English or other language, Political Science, History, Economics, Geography, Sociology, Psychology or other social science subjects or Fine Arts, Health & Physical Education etc. Specialisation or honours courses can also be done in any one subject as a major such as B.A. in Fine Arts or English etc.

## Eligibility

10+2

## Institutes/Universities

A large number of colleges under central and state universities offer BA degree programmes in the country with various combinations both at Honours and general program level.

## Courses

- B.A.
- M.A.
- Ph. D





# DIPLOMA IN ELEMENTARY EDUCATION (D.EL.ED.) BACHELOR OF EDUCATION (B.ED.)

## Introduction

Diploma in Elementary Education (D.El.Ed/D.Ed) programme is meant for training of in-service teachers working in primary/ upper primary schools. Whereas Bachelor of Education (B.Ed.) course is meant for training of teachers for teaching at secondary and senior secondary classes.

## Eligibility

Eligibility (D.EL.ED) - 10+2 standard examination with 50% marks and teaching experience at the time of seeking admission is also required in some institutes

(B.Ed.) - Bachelor of Arts (B.A.) or Bachelor of Science (B.Sc.).

## Courses Offered

- D.El.Ed/D.Ed.
- B.Ed.
- B.Ed. (Special-Visual Impairment)
- B.Ed. (Special-Hearing Impairment)
- B.Ed. (Special-Mental Retardation)
- M.Ed.
- M.Ed. (Special-Visual Impairment)
- M.Ed. (Special-Hearing Impairment)
- M.Ed. (Special- Mental Retardation)
- M.Ed. (Part Time)
- Ph.D. (Education)

## Institutes/Universities

1. National Institute of Open Schooling, Noida
2. Banaras Hindu University, Varanasi, UP
3. University of Lucknow, Lucknow, UP
4. Jamia Millia Islamia, Delhi
5. Guru Gobind Singh Indraprastha University, Delhi
6. MD University, Rohtak, Haryana
7. Kurukshetra University, Kurukshetra, Haryana
8. Indira Gandhi National Open University, New Delhi
9. Madurai Kamaraj University, Madurai, Tamilnadu
10. State Council of Educational Research and Training, Delhi





# CORPORATE INTELLIGENCE

## Introduction

Corporate intelligence helps in making business decisions and strategies. It assesses and gives important information on present and prospective business and other matters to assist companies to avoid risks, venture into new markets/fields, mitigate business problems and carry out investigations. Its activities and work improves business opportunities. It adds to corporate, financial and legal intelligence of a company. Corporate intelligence becomes pre-requisite for new investments, combined ventures and procurements/acquisitions. It greatly helps in enhancing business opportunities and on basis of trustworthy information.

## Courses & Eligibility

CIP<sup>®</sup>-I and Master of CI CIP<sup>®</sup>-II Module Courses CIP<sup>™</sup>-I Level Certification requires completion of courses CI 101<sup>®</sup>, CI 301, CI 302, CI 303, CI 304. Once you have completed these courses you would be eligible to take the exam.

Master of CI CIP<sup>™</sup>-II Level Certification requires completion of courses CI 401, CI 402, CI 403 and CIP<sup>™</sup>-I certification. You cannot receive the Master of CI CIP<sup>™</sup>-II certification without first receiving the CIP<sup>™</sup>-I certification.

## Colleges/Institutes/Universities

Academy of Competitive Intelligence (ACI)  
(Accredited Training + Certification Program)  
6<sup>th</sup> Floor, Tower B, Green Boulevard, Sector 62,  
Noida, 201301  
Website: [www.academyci.com](http://www.academyci.com)





# DETECTIVE

## Introduction

The work of Private detectives is to investigate multiple areas, ranging from finding missing persons to discovering the cause of a fire, or recovering stolen property to investigating theft. It encompasses conducting casework, interview witnesses, perform surveillance, and review public and government records to collect information. Cases may at times require investigators to testify in a court or work alongside law enforcement.

## Courses

- Forensic Detective
- Private Investigator / Detective

## Eligibility

10<sup>th</sup> (SSC) or 10+2 (HSC) or Diploma passed in any discipline from recognized Board/ School/ College OR Basic knowledge about related field. Details are available at link <http://www.ifs.edu.in/eligibility>.

## Institutes/Universities

International Forensic Sciences, Pune, (Court Appointed Commission, Govt. of India & Govt. of Maharashtra Regd. and ISO Certified)

Website: [www.ifs.ac](http://www.ifs.ac) , [www.ifsindia.com](http://www.ifsindia.com)







# FOOD SCIENCE AND NUTRITION

## Introduction

It is the study of understanding the biological and chemical composition of food and how its preservation can affect the level of nutrition. Nutritionist, Diet Therapist, and Aerobic Consultant know the science of Food and Nutrition and integrate it with the production and consumption of food.

## Courses

- (B.Sc.) - Food Science and Nutrition
- (M.Sc.) - Food Science and Nutrition
- Ph. D

## Eligibility

10+2 examination in any relevant stream

## Institutes/Universities

1. Banaras Hindu University, Varanasi
2. Banasthali Vidyapith, Tonk, Rajasthan
3. CSA University of Agriculture and Technology, Kanpur
4. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)

A number of colleges also offer this course.





# FOREIGN LANGUAGES

## Introduction

Learning foreign languages not only strengthens better understanding of cultures ,perspectives ,employability but also improves cognitive skills ,concentration span ,memorisation and multi-tasking skills in an individual .

## Eligibility

10<sup>th</sup> /10+2 for Diploma & Certificate courses.

10+2 with Diploma or Certificate courses for BA.

The eligibility criteria is also varied for MA among the universities & language centres.

## Courses

There are a variety of short & long duration courses to learn languages like Japanese, Italian, German, Russian, Chinese, Portuguese, Spanish, Persian, Arabic and French.

- Short term (2months-1 year): Certificate / Diploma / Advance Diploma Courses.
- Long term (2years-3years): Bachelor's Degree & PG Diploma Courses.
- Masters degree (1 or 2 year): MPhil, MA, Ph. D, etc.
- 5 year Integrated Masters course
- Summer courses-21months

## Institutes/Universities

1. Jawaharlal Nehru University, New Delhi.
2. Central Institute of English & Foreign Languages, Hyderabad.
3. Jamia Millia Islamia, New Delhi.
4. Aligarh Muslim University, Aligarh.
5. Barkatullah Vishwa vidyalaya, Bhopal.
6. Banaras Hindu University, Varanasi
7. Madurai Kamaraj University, Madurai.
8. Indira Gandhi National Open University (IGNOU)





# HOME SCIENCE

## Introduction

Home Science course is the study of the artistic values and the scientific methods employed in home management. It helps the students to have knowledge on diverse aspects of Resource Management, Food Nutrition, Human development, and so on.

## Courses

- B. Sc. in Home Science
- M.Sc. Home Science
- Ph.D. in Food and Nutrition
- Ph.D. in HECM

## Eligibility

10+2 or intermediate examination or an equivalent examination with any two Biology/Natural Sciences, Physical Sciences, Agricultural Sciences and Vocational courses in Home Science.

## Colleges/Institutes

1. College of Home Science, Bikaner (Rajasthan)
2. College of Home Science, Hyderabad (Andhra Pradesh)
3. College of Home Science, Pantnagar, Uttarakhand.
4. Goa College of Home Science, Goa
5. Government Home Science College, Chandigarh





# INTERIOR DESIGNING

## Introduction

The course consists of developing concepts, spaces, research and managing projects.

Interior designing is the art of designing interior furniture, furnishings, design patterns, colour combinations to meet the demand of customized solutions.

## Courses

- Diploma in Interior Design.
- Bachelor of Design (B. Des) Interior Design
- Bachelor of Science (B. Sc) Interior Design
- Bachelor of Interior Design (BID)
- Master of Science (M. Sc) Interior Design
- Master of Science (M. Sc) Interior Design & Resource Management

## Eligibility

10+2. Some colleges / universities select students based on their performance in aptitude test. The candidate's skills in Mathematics, science, drawing skills, etc. are tested.

## Institutes/Universities

1. School of Interior Design, CEPT, Ahmedabad, Gujarat. Design Discipline, PDPM IIITDM Jabalpur, Madhya Pradesh.
2. Utkal University of Culture, Bhubaneswar, Odisha.
3. SNDT Women's University, Mumbai, Maharashtra
4. Meera Bai Institute of Technology, New Delhi.





# LIBERAL STUDIES

## Introduction

Liberal studies involves the multidisciplinary study of subjects ranging from Humanities to, Sciences, Social Sciences and Arts. The aim of the course is to develop critical thinking

## Eligibility

10+2 or equivalent examination

## Courses

- BA/BSC Liberal Arts
- MA Liberal Studies
- Doctor in Liberal Studies

## Institutes/Universities

1. PDP University, Gandhinagar
2. University of Delhi
3. Jawaharlal Lal Nehru University, Delhi





# LIBRARY SCIENCES

## Introduction

Library Science course is the study of managing, maintaining and preserving records and information. Information of various types is sourced and classified for users with the help of record management .,preserved and disseminated with the help of technology.

## Courses

- Certificate Course in Library Science.
- Diploma in Library Science.
- Bachelor of Lib & Info Science (BLISc)
- Bachelor of Library science (BLSc)
- Masters in Lib & Info Science (BLISc)
- Masters in Library science (BLSc)

## Eligibility

10+2 (any stream) for Certificate & Diploma Courses

## Institutes /Universities

1. Jai Narain Vyas University
2. University Of Rajasthan, Rajasthan
3. Nalanda Open University, Patna, Bihar.
4. Medical Library Association of India (MLAI),
5. AIIMS, New Delhi offers a diploma course in Medical Librarianship.
6. Bachelor of Library & Information sciences
7. U.P. Rajarshi Tandon Open University, Allahabad, U.P.
8. Yashwantrao Chavan Maharashtra Open University, Nashik, Maharashtra. Kota Open University, Kota, Rajasthan.
9. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in>)
10. Dr.B.R. Ambedkar Open University, Telangana





# MONTESSORI TEACHING

## Introduction

This course is meant for teaching in nursery schools/ playschools/ pre-schools/ kindergartens on doing early childhood education/nursery teacher training course or Montessori teacher training course. After doing these training courses, there are avenues for becoming entrepreneur in this field of education by setting up schools.

## Courses

- Indian Montessori Training Course (IMTC)
- The Online Montessori Training Course (OMTC)
- Nursery Teacher Training - N.T.T.
- Nursery Primary Teacher Training - N.P.T.T.
- Primary Teacher Training - P.T.T.

## Montessori Training Institutes

1. Indian Montessori Centre, Chennai, Bangalore
2. All India Institute of Child Care and Education, New Delhi

## Eligibility

Should be at least 18 years of age

Passed in 10<sup>th</sup>

## Accreditation/Recognition

The Association Montessori International (AMI) and American Montessori Society (AMS) accredit training centres throughout the world and offer internationally recognised AMI Diploma Courses. In India, not all are accredited to AMI but are recognized by Department of Education.

## Online Montessori Training Institutes

1. [www.indianmontessoricentre.org](http://www.indianmontessoricentre.org)
2. [www.montessorilive.net](http://www.montessorilive.net)
3. [www.montessoritraining.net](http://www.montessoritraining.net)
4. [www.montessori-icme.com](http://www.montessori-icme.com)
5. [www.montessori.edu](http://www.montessori.edu)





# NUTRITION AND DIETETICS

## Introduction

Nutrition and Dietetics is mainly associated with the promotion of good, clean health habits which can help to live a quality life. The focus is to educate, motivate and counsel people for a better work routine and healthy food selection.

The study of nutrition involves - understanding of the components of the food, harmful reactions, digestion and body fitness.

## Courses

- Diploma in Dietetics and Public Health Nutrition (DDPHN)
- BSc (Food & Nutrition)
- MSc (Food & Nutrition)
- MSc (Food & Fermentation Technology)
- MSc – Home Science (Specialization in food science & nutrition)
- PG Diploma in Food & Nutrition

## Eligibility

10+2 examination in any relevant stream

## Institutes/Universities

1. National Institute of Nutrition, Hyderabad
2. University of Bombay, Mumbai
3. SNDT Women's University, Mumbai
4. University of Health Science, Vijayawada-A P
5. Jawahar Lal Nehru Technological University, Hyderabad
6. Central Food Technology & Research Institute, Mysuru.
7. University of Mysore, Mysore.
8. Tamil Nadu GD Naidu Agricultural University, Coimbatore
9. All India Institute of Hygiene and Public Health, Calcutta
10. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)







# PHYSICAL EDUCATION

## Introduction

Physical Education is an interdisciplinary course that covers the physical knowledge of sports, exercises or physical activities. It teaches care, development of body of a person or a group of people through training and management skills.

## Courses

- B. Sc. (P.E., H.E. & S.)
- B.P. Ed.
- M.P. Ed.
- Ph. D.

## Eligibility

10+2 in any stream

## Institutes/ Universities

1. Allahabad University, Allahabad
2. Andhra University, Visakhapatnam
3. Annamalai University, Chennai
4. Banaras Hindu University, Varanasi
5. College of Physical Education, Pune
6. Indira Gandhi Institute of Physical Education & Sports Sciences, New Delhi
7. Jamia Millia Islamia University, New Delhi
8. Kurukshetra University, Kurukshetra
9. Lakshmibai National College of Physical Education, Thiruvananthapuram
10. Lakshmibai National University of Physical Education, Gwalior
11. Manipur University, Imphal
12. North Eastern Hill University, Shillong
13. University of Mysore, Mysuru
14. University of Pune, Pune
15. University of Rajasthan, Jaipur
16. Utkal University, Bhubaneswar





# SPORTS/SPORTS MANAGEMENT

## Introduction

Sports means to indulge in any kind of Physical activity or games played individually or in groups/teams for the purposes of enjoyment, learning skills and participating in competition. The course provides details of these athletic activities, management structure, rules and ethics etc.

## Courses

- Diploma in Sports Medicine
- Diploma in Sports
- Coaching Diploma in Sports Management
- Diploma in Sports Science & Nutrition
- Bachelor of Arts (BA) in Sports Management
- B. Sc. in Physical Education, Health Education and Sports Sciences
- B. Sc. in Sports and Recreation Management
- BBA (Sports Management)
- BA (Sports Management)
- BPED (Bachelor in Physical Education)
- Bachelor of Business Administration (BBA) in Sports Management
- M. Sc in Sports Coaching
- M. Phil/ Ph. D in Physical Education
- Post-Graduate Diploma in Sports Management - 1 year Full Time
- P. G. Diploma in Sports Science Fitness & Nutrition

## Eligibility

10 & 10+2 at entry level

## Institutes/Universities

1. Indira Gandhi Institute of Physical Education and Sports Sciences, New Delhi
2. National Institute of Sports, Patiala
3. Lakshmibai National Institute of Physical Education, Gwalior
4. Lakshmibai National College for Physical Education, Thiruvananthapuram, Kerala
5. SNDT Women's University, Mumbai
6. Delhi University





# TOURISM & TRAVELS

## Introduction

Tourism & Travels studies the physical, economic, social and cultural aspects of tourism, tourist markets, and destinations. It also studies the wider perspective of tourism as an interdisciplinary way drawing knowledge from several social science subjects.

## Courses

- Basic course in Travel Management. (3months / 6 months)
- Diploma in Tourism Management
- Diploma in International Airlines & Travel Management (IATA)
- Masters in Tourism Administration
- Post Graduate Diploma in Tourism & Travel.

## Eligibility

10+2 with fluency in English, at least one foreign language & also 2 or 3 regional languages.

At post graduate level: Graduation in any discipline.

## Institutes/Universities

1. Indian Institute of Travel & Tourism Management, New Delhi
2. Indian Institute of Tourism and Travel Management, Gwalior
3. Annamalai University, Chennai
4. Kota Open University, Rajasthan
5. University of Kerala, Trivandrum
6. Pondicherry University, Puducherry
7. Indira Gandhi National Open University, New Delhi (<http://www.ignou.ac.in/>)





# ALLOPATHY

## Introduction

Allopathy generally refers to the science-supported modern medicine wherein medical professionals (doctors, nurses, pharmacists and therapists) assess and treat any disease, its symptoms and effects by means of drugs, surgery, radiology etc. Medical professionals work individually as well as in team for analysing a patient's disease or general health issues with their symptoms and effects and take steps for treatment with diagnostic tests, surgery, prescribing certain medications. They also undertake research in medical field to explore cause of ailments and best possible ways of treating diseases and injuries. The specialities in it include Internal medicine, Anaesthesiology, Neurology, Cardiovascular medicine, Paediatrics, Family medicine, Oncology, Psychiatry, Dermatology, Orthopaedics, Radiation oncology etc.

## Eligibility

UG: 10+2 class pass with Physics, chemistry and biology

Entrance Test: NEET-UG. Besides, many medical institutes conduct their own entrance test for UG course in allopathic medicine

PG: MBBS

## Courses

- Bachelor of Medicine and Bachelor of Surgery (MBBS)
- MCH/DM/DNB
- Master of Surgery (MS)
- Doctor of Medicine (MD)

## Institutes/Universities

1. AIIMS, New Delhi
2. Banaras Hindu University, Varanasi, UP
3. Lady Hardinge Medical College, New Delhi
4. Armed Forces Medical College, Pune
5. Maulana Azad Medical College, New Delhi
6. JIPMER, Puducherry
7. University of Delhi, Delhi





# DEFENCE AND STRATEGIC STUDIES

## Introduction

The Indian Army, Indian Air Force, Indian Navy and Indian Coast Guard constitute very contours of Indian Armed Forces. The various paramilitary organizations and various inter-service institutions also assist the Indian Armed Forces. The broad classification of Indian Defence and Paramilitary forces is as under:-

- Indian Armed forces
- Indian Air Force
- Indian Navy
- Indian Coast Guard
- Central Armed Police Force
- Assam Rifles
- National Security Guard (NSG)
- Inter-Service Institutions (NDA, NDC, DSSC, NCC, AFMC)

The interdisciplinary subject of Military / Defence Studies in various colleges / universities in India related the studies or various aspects of national security such as military manpower, strategic interest, geopolitics, geography, science and technology, economics of defence, conflict management and conflict resolution, war etc.

## Courses

- National Cadet Corps (N.C.C) certification For Special Entry
- B.A. / B.A. (Defence and Strategic Studies) B.A. / B. Architecture/ Degree in Law/ B. Tech/ B.E/ B.SC/ B.Com/B.Sc. (IT)
- M.A. /MBA/ M. Tech / MCA
- M.A. / M.A. in Defence Studies & Strategic Studies

## Eligibility

All India Competitive Examinations conducted by UPSC for Army, Indian Air Force and Navy

- National Defence Academy (NDA) and Naval Defence Academy (NA) – For 10+2
- Senior Secondary Recruit (SSR), Musician (MUS), Sports Entry and Artificer Apprentices (AA) Tests etc. are conducted by Indian Navy – For 10+2
- Airman (X&Y Grade) - Intermediate/10+2/Equivalent examination from Education Board listed as member by COBSE (or) Three years Diploma Course in Engineering (For Group 'X' Trades) from a Government recognised Polytechnic Institute (or) Two year vocational course (For Group 'Y' Trades) from Education Boards listed as COBSE member with a minimum of 50% marks in aggregate and 50% marks in English
- Combined Defence Service Examination (CDSE) - For Graduates
- Air Force Common Admission Test (AFCAT) is conducted by IAF- For Graduates

## Institutes/Universities

1. University of Delhi, Delhi
2. Banaras Hindu University, Varanasi
3. Anna University, Chennai
4. Maharshi Dayanand University Rohtak, Haryana
5. Aligarh Muslim University Uttar Pradesh
6. Birla Institute of Technology, Mesra and Ranchi
7. Deen Dayal Upadhyay Gorakhpur University, Uttar Pradesh
8. Swami Vivekanand Technical University Chhattisgarh
9. Jamia Millia Islamia University, Delhi
10. University of Calcutta, Kolkata
11. Pondicherry University, Puducherry
12. Tezpur University, Tezpur
13. Kurukshetra University, Kurukshetra
14. Chandigarh University, Chandigarh
15. Jiwaji University, Gwalior
16. Jawaharlal Nehru Technological University, Hyderabad
17. Defence Institute of Advanced Technology, Pune
18. Indraprastha Institute of Information Technology Delhi
19. Guru Gobind Singh Indraprastha University, New Delhi





# COMPANY SECRETARY

## Introduction

A company secretary plays multi-disciplinary roles in a company while dealing with matters such as corporate laws, securities laws, capital market and corporate governance. CS is an in-house legal expert/ planner/ strategic manager and compliance officer of the company for audit and verifications.

Therefore, the work of a C.S. is also covers areas of Corporate Laws Advisory & Representation, Arbitration & Conciliation Services.

## Eligibility

**Foundation Programme** - 10+2 pass or equivalent of Arts, Science or Commerce Stream (Excluding Fine Arts)

**Executive Programme** - Bachelor's degree in any discipline (other than Fine Arts) and Foundation Program passed students

**Professional Programme** -Executive Programme passed students

### Stages to become Company Secretary

After 10+2- All above 03 programs

After Graduation- Both Executive and Professional Program

After completing Professional Program stage successfully and Practical Training requirements, the students can become an Associate Member of ICSI.

## Courses

- Foundation Programme
- Executive Programme
- Professional Programme

## Institutes/Universities

The Institute of Company Secretaries of India, New Delhi is the only recognised professional body in India to develop and regulate the profession of Company Secretaries in India. It is a premier national professional body to set up under Act of Parliament i.e. Company Secretaries Act, 1980. ICSI functions under the jurisdiction of the Ministry of Corporate Affairs, Govt. of India. The institute provides education of Company Secretaries (CS) Course and best quality set standards to CS Members.



# BLOCKCHAIN TECHNOLOGY



## Introduction

The Blockchain Technology is basically an open source digital ledger where the information is shared in a reliable, secure, chronological manner. The Blockchain Technology sprung after huge popularity of digital cryptocurrencies.

The study of Blockchain Technology comprises basic design and architectural of Blockchain, emerging models, functional and operational aspects of the cryptocurrency, cyber security, its usage in various application domains and limitations, etc.

## Courses

- B.Tech. (CSE-Block Chain)
- Advanced Certification Program (Blockchain and Distributed Ledger Technologies)
- PG Certificate Blockchain Technology
- Online Course- Blockchain Architecture Design and Use Cases\*

## Eligibility

UG: (10+2) with Physics, Chemistry Maths

PG: B. Tech. (Computer Science Engineering /Information Technology)/ M.Tech/ Ph.D

## Institutes/Universities

1. International Institute of Information Technology, Hyderabad (IIIT-Hyderabad)
2. Sharda University, Greater Noida UP
3. Amity University, Noida.
4. IIIT Bangalore
5. \*NAPTEL with IIT Kharagpur (<https://nptel.ac.in/>)

There are also Private institutions offering online/offline courses in Blockchain Technology.



PMO India  
@PMOIndia

Disruptive technologies such as Block-chain and the Internet of Things, will have a profound impact in the way we live and work. They will require rapid adaptation in our workplaces: PM @narendramodi

11:18 AM - 19 Feb 2018





# DIGITAL MARKETING

## Introduction

Digital Marketing Courses broadly give inside view of sales and marketing activities and practical understanding of digital means and technologies through Internet, mobile phones, display advertising, and similar other digital channels and platforms.

## Courses

- Digital Marketing Training Programme (weekend classes, 3 months)
- Certificate Course in Digital & Social Media Marketing (Open Learning, 06 months)
- Diploma in Digital Marketing & Media Management
- Executive Programme on Digital & Social Media Marketing Strategy (EPDSMMS)
- Executive Development Programme in Digital Marketing
- Master of Management Studies in Digital Marketing
- MMS - Digital Business Management

## Eligibility

**Minimum Eligibility:** 10+2

**Executive Program/PG Program:** Graduate / Post-Graduate degree

Executive Program also requires 2/3 years of relevant experience.

## Institutes/Universities

1. Bharatiya Vidya Bhavan, New Delhi
2. University of Delhi, Delhi
3. New Delhi YMCA
4. IIM Kolkata
5. XLRI Xavier School of Management, Jamshedpur
6. University of Mumbai, Mumbai





# CIVIL SERVICES



## Introduction

Civil Services can be referred as executive branch of India works as the backbone of the administrative machinery of the country. It facilitates in implementation of policies of Govt. of India and delivering services in India while creating vision and strategies vis a vis emerging requirements.

The Union Public Service Commission (UPSC) conducts nationwide preliminary and main exams followed by Interview for selection of candidates for recruitment to various Civil Services of the Government of India.

## Eligibility

**Minimum Educational Qualifications** of Preliminary Exam of UPSC: Graduate

**Age Limits:** 21 - 32 years. Upper age-limit is relaxable in certain categories.

**Number of attempts:** Six

More details on eligibility, exams, syllabus of exams etc. can be had from UPSC or its official website [www.upsc.gov.in](http://www.upsc.gov.in) and website <http://www.upsconline.nic.in>.

## List of 24 Civil Services

(i) Indian Administrative Service. (ii) Indian Foreign Service. (iii) Indian Police Service. (iv) Indian P & T Accounts & Finance Service, Group 'A'. (v) Indian Audit and Accounts Service, Group 'A'. (vi) Indian Revenue Service (Customs and Central Excise), Group 'A'. (vii) Indian Defence Accounts Service, Group 'A'. (viii) Indian Revenue Service (I.T.), Group 'A'. (ix) Indian Ordnance Factories Service, Group 'A' (Assistant Works Manager, Administration). (x) Indian Postal Service, Group 'A'. (xi) Indian Civil Accounts Service, Group 'A'. (xii) Indian Railway Traffic Service, Group 'A'. (xiii) Indian Railway Accounts Service, Group 'A'. (xiv) Indian Railway Personnel Service, Group 'A'. (xv) Post of Assistant Security Commissioner in Railway Protection Force, Group 'A' (xvi) Indian Defence Estates Service, Group 'A'. (xvii) Indian Information Service (Junior Grade), Group 'A'. (xviii) Indian Trade Service, Group 'A'. (xix) Indian Corporate Law Service, Group 'A'. (xx) Armed Forces Headquarters Civil Service, Group 'B' (Section Officer's Grade). (xxi) Delhi, Andaman & Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Civil Service, Group 'B'. (xxii) Delhi, Andaman & Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Police Service, Group 'B'. (xxiii) Pondicherry Civil Service, Group 'B'. (xxiv) Pondicherry Police Service, Group 'B'





# RADIOLOGY

## Introduction

In Diagnostic Radiology, the images of X-Ray and other imaging techniques are used to diagnose the disease or ailment of a patient through procedures such as plain radiographs, ultrasound, and computed tomography (CT), MRI and positron emission tomography coupled with CT or MRI (PET-CT and PET-MRI) etc. Radiology can be broadly categorised into two areas:-

1. Diagnostic radiology
2. Interventional radiology

## Courses

- B.Sc. (Hons) in Medical Technology In Radiography
- B.Sc. Imaging Technology
- B.Sc. Radiotherapy Technology
- B.Sc. (Medical Technology) Radiography
- M.Sc. (Medical Imaging Technology) Radio
- B.Sc. Allied Health Science Courses
- Bachelor of Paramedical Technology (Radiographic Technician)
- Bachelor of Paramedical Technology (Radiotherapy Technician)
- Two years Advance Diploma in Medical Imaging Technology (ADMIT)
- Two years Advance Diploma in Radiotherapy Technology (ADRT)
- One year PG Diploma in Fusion Imaging Technology (PGDFIT)
- D.M.R.D.(Radio diagnosis)
- M.Sc. Radiography
- M.D in Radio diagnosis

## Eligibility

UG Levels:

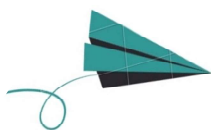
10+2 or equivalent examination with English, Physics, Chemistry and either Biology and/or Mathematics

PG Levels:

Candidates should have Bachelor Degree in Sciences (three years course), Medical Technology (Radiography) and Medicine/ a MBBS degree

## Institutes/ Universities

1. All India Institute of medical Science, New Delhi
2. Rajeev Gandhi University of Health Science, Bangalore
3. University College of medical Science and GTB Hospital, Shahdara, Delhi University
4. Tata Memorial Hospital, Mumbai
5. JIPMER Puducherry
6. Armed Forces Medical College, Pune
7. Annamalai University, Annamalai nagar, Tamilnadu





# DISASTER MANAGEMENT

## Introduction

Disaster Management provides fundamental conceptual understanding of various type of disasters that affect human lives and property.

It studies causes and effects of calamities, human response to emergencies, crisis management, aspects of damage management & control, insurance, strategies for Disaster Risk Reduction and rehabilitation, applications for science and technology for hazards, communication systems during calamities, Public Health consequences of Disasters, awareness towards disasters etc.

## Eligibility

Diploma/ Graduation: Pass in 10 +2 Exam or any other equivalent exam

PG Level: Graduate

However, some institutions seek Bachelor's degree in Geography/ Geology/ Environmental Science / Civil Engg. OR M.Sc./ M. Tech in Remote Sensing/GIS as well as prescribe Entrance Test for admission

## Courses

- Diploma in Disaster Management (Self-financed, Evening)
- B.A. (Subsidiary) Disaster Management
- Master of Arts / Master of Sciences (MA/ M.Sc.) (Disaster Management)
- P.G. Diploma in Disaster Management
- M.B.A. (Disaster Management)
- M. Sc. (Disaster Management and Climate Sustainability Studies)
- Post Graduate Diploma in Disaster Preparedness and Rehabilitation
- Post Graduate Diploma in Disaster and Livelihood Recovery
- MA/PhD in Disaster Studies

## Institutes/Universities

1. Madurai Kamraj University, Madurai
2. Tata Institute of Social Sciences, Mumbai
3. Jamia Millia Islamia, New Delhi
4. Punjab University, Chandigarh
5. Swami Ramanand Teerth Marathwada University, Nanded (Sub-Centre,Latur) Maharashtra
6. Uttarakhand Open University, Haldwani (Nainital), Uttarakhand
7. Guru Gobind Singh Indraprastha University, New Delhi
8. Indira Gandhi National Open University (IGNOU).
9. Jawaharlal Nehru University New Delhi
10. Annamalai University, Annamalai nagar, Tamil Nadu



# TELECOM MANAGEMENT



## Introduction

Telecommunication management encompasses understanding of telecom-related technologies including telephony, television and internet. This also includes required skills, space, and strategies to manage telecom networks – voice, video and data.

The focus of the study on Telecom Industry is compatibility and conjunction with other technologies, expansion of systems and services, managing cost pressures, and robust industry gains etc. while fulfilling workforce requirements and other dynamic needs of information and communication technology systems to make Telecom technology as a means of development as well as welfare.

## Courses

- B.Tech (Electronics & Telecommunication)
- B.B.A. (E.M. & T.M.)
- M.Tech. (Telecom Technology and Management)
- M.B.A. (E.M. & T.M.)
- MBA (IT & Telecom)
- M.B.A. Telecom Management
- ERP Module Training Programs\*

## Eligibility

B.Tech. – 10+2 with minimum 60% in PCM for Non-Sponsored & 55% for Sponsored Category.

Post Graduate: BSc/BCA/B. Tech./BE/BBA

## Institutes/Universities

1. Annamalai University, Annamalai nagar, Tamilnadu
2. Bharti School Of Telecommunication Technology And Management, Indian Institute Of Technology Delhi
3. Amity University, Noida
4. Panjab University, Chandigarh
5. Symbiosis Institute of Telecom Management (SITM), Pune

\*By Advance Level Telecom Training Centre, Ghaziabad (An Apex Training Institute of BSNL & Centre for Excellence for ITU)





# ENTREPRENEURSHIP

## Introduction

Entrepreneurship is the art of starting and managing a business. This is the skill of identifying a business opportunity, investing in it, making a plan for enterprise expansion and monitoring. An Entrepreneur explores newer fields/ sources or demands in existing businesses.

The Entrepreneur ideates and establishes business venture vis a vis demand, assesses business requirements, business dealing and follow-ups.

## Courses

- Diploma in Entrepreneurship and Skill Development (DESD)
- Executive Professional Development Program In Entrepreneurship
- Management Programme for Entrepreneurs and Family Businesses (MPEFB)
- Management Programme for Women Entrepreneurs (MPWE)
- Master of Business Administration
- Post Graduate Diploma in Management (with Entrepreneurship as a subject)
- Post Graduate Diploma in Entrepreneurship
- Post Graduate Programme in Management – Business Entrepreneurship.

## Eligibility

For Diploma: 10+2 or Bachelor Preparatory Programme (BPP) from IGNOU

Post Graduate Course: Graduation/ Graduation with relevant work experience

## Institutes/Universities

1. Indira Gandhi National Open University, New Delhi
2. Indian Institute of Management (IIM), Rohtak, Haryana
3. Indian Institute of Management (IIM), Bangalore
4. Indian Institute of Management (IIM), Ahmedabad
5. Faculty of Management Studies, University of Delhi
6. Xavier Institute of Management and Entrepreneurship (XIME), Bangalore, Chennai, Kochi,
7. XLRI, Jamshedpur
8. Delhi School of Business, Delhi
9. Entrepreneurship Development Institute of India (EDI), Gandhinagar
10. The National Institute for Entrepreneurship and Small Business Development, Noida UP (This autonomous Institute of Ministry of Skill Development and Entrepreneurship offers various training programs/modules for Entrepreneurship)

