G **Science Subjects…………………………………………………………………………………………………….**

**3.1Travel and Tourism Management (12 months)**

* 1. **Diploma in Medical laboratory Technology**
  2. **Diploma in Operation Theatre Technology …2 years.**
  3. **Diploma Pharmacy**
  4. **Diploma in Radio Imaging Technology … 2 years**
  5. **Diploma Invasive Cardio Vascular tech. 2-years**

* 1. **Diploma in General Nursing and Midwifery (GNM-Nursing)**

**Introduction**

* Nursing is the art of taking care of sick people.
* Midwifery is a profession that provides assistance to a mother during labor and pregnancy.
* Subjects studied under this degree are biological Science, Psychology, Sociology, fundamentals of Nursing and First-aid.

**Duration:** Diploma (general Nursing & Midwifery) is a 3-year course.

**Eligibility:** 10+2 Science

**Institutions/Colleges/universities**

* Malwa College of Nursing, Kotkapura, Punjab
* AIIMS, Delhi
* AFMC, Pune.
* Govt. Medical College Amritsar.
* NIMS University, Jaipur.
* Pt. Bhagwat Dayal Sharma Postgraduate Institute of Medical Science. Rohtak
* Many more Colleges in different States
  1. **Certificate Course in Food Production and Patisserie**
  2. **Certificate Course in Food Technology**
  3. **Diploma Course in Food Science and Quality Control**
  4. **Diploma in Food and Nutrition**
  5. **PG Diploma in Food Analysis and Quality Control**
  6. **Trade Diploma in Hotel Management (TDHM)**
  7. **Food Production**
  8. **Bachelor of Environmental Science (37)**
  9. **Bachelor of Hospital Management (93)**
  10. **Bachelor of Pharmacy (B.Pharma)**

**Introduction**

1. The program covers all the facets of healthcare including bio-chemical areas that concerns the preparation of medicine in implementing those for the right diagnosis.
2. Students will learn about the medicines and their effects on human body with details of chemical and organic properties of all the elements used.
3. There are different specialization like pharmaceutical chemistry, pharmaceutics, pharmacology and pharmaceutical analysis.

**Eligibility**

1. 10+2 with PCB

**Courses**

1. UG, PG & Research

**Institutions/colleges/universities**

1. Admission through JEE/NEET
   1. **B.Sc. (Hon) Agriculture**

**Introduction**

* The B.Sc. (Ag) degree differs from a B.Sc. degree
* Students use to study *Agricultural economics* rather than economics. Like engineering or forestry
* Agricultural science courses are infused with practicality
* It requires specialization for example, majoring in animal science, plant protection, soil science or agricultural engineering

**Eligibility**

* 10+2with science (PCB/PCM)

**Duration of the course:** 4-years

**Colleges**

* India has one of the largest agricultural education system with 42 states Agricultural Universities (SAUs)
* 3 Central universities (CAUs) viz. Imphal, Pusa and Jhansi

The curriculum is very broad and inter-disciplinary consisting of courses in

1. Agronomy,
2. Agricultural Micro-biology,
3. Horticulture,
4. Plant pathology,
5. Entomology
6. Agricultural Economics
7. Extension Education
8. Genetics and Plant Breeding
9. Soil Science
10. Soil Microbiology
11. Food Technology
12. Food Microbiology
13. Food Safety and Standards
14. Animal Husbandry

apart from supporting courses in Basic Science, Humanities and Agricultural Engineering.

* The program also includes a compulsory one semester internship (Rural Agricultural Work Experience,
* Most of the courses are infused with Practicality with emphasis on “hands on’ experience and ‘learning by doing’
* Prior to 1998, the B.Sc. (Ag) degree was known as B.Sc (Ag and AH) (AH= Animal Husbandry) and evaluation was on 5-point scale
* Since 1998, it has been designated as B.Sc. (Ag) and AH part has been transferred to BVSc (Bachelor of veterinary Science), which is now designated as BVSc & AH. However, B.Sc. (Ag) still retains courses in Animal Husbandry and nutrition.
* In 2006 ICAR has recommended to redesign B.Sc. (Ag) as B.Sc. Hon (Ag)
* Like BE/B.Tech, MBBS, or BVSc & AH. B.Sc. (Ag) is considered as a professional degree by Government of India.
* In recognition of its 4-year duration B.Sc. (Ag) holders are given some benefits
  1. **B.Sc. Anthropology**

**Introduction**

* Anthropology is the scientific study of humans, human behavior and societies in the past and present.
* Social Anthropology studies patterns of behavior,
* Cultural Anthropology studies the cultural meaning including norms and values.
* Linguistic Anthropology studies how language influences social life.
* *It ia the study of what makes us human,*
* It takes a broad approach to understanding so many different aspects of human experience , which we call holism.
* Anthropology consider the past through Archeology to see how human groups lived hundreds or thousands years ago and what was important to them.

**Eligibility**

* 10+2 in Science for B.Sc.

**Courses**

* B.Sc. Anthropology, M.Sc., Ph.D

**Institutions/colleges/universities**

* DU
* AMU
* Assam University
* Dibrugarh University
* Lucknow University

**Employability**

* M.Sc. for getting a Job
* Ph.D. for work as an advisor for any International agency
  1. **B.Sc. Bio-chemistry**
  2. **B.Sc. General**

**Introduction**

It is a graduate level course in science related subjects. Students can choose between B.Sc. general and B.Sc. (Hon). Those interested in the field of computers and information and technology can opt fof B.Sc. (computer science/IT). The traditional B.Sc. course includes subjects like PCM (Physics, Chemistry, and Mathematics) and PCB (Physics, Chemistry and Biology). It includes the study of Organic Chemistry, Bio-Physical chemistry, Human Physiology, Micro-biology, Basic Immunology, Enzymes, Virology etc.

**Eligibility**

10+2, admission in Du is exclusively on the basis of merit,

Other Universities do conduct entrance test

**Courses**

B.sc with PCM and PCB

* 1. **B.Sc. Computer Application**

**Introduction**

* It is a technical degree that prepares thee students for a career in the field of Computer Application and Software Development.
* This being a professional course, even non- math students can also opt for this course.
* The course gives an insight into the world of Computers world and its application

**Eligibility**

10+2 In any stream

**Duration:** 3-years

**Courses**

UG, PG and Research, MBA in IT, M.Sc. IT.

**Institutes/colleges/universities**

* DU Colleges
* IGNOU
* JMI
* AMU
  1. **BVSc. Veterinary Science**
  2. **B.Sc. (Hon) Bio-informatics**

**Introduction**

* Bioinformatics is the application of statistics and computer science to the field of molecular Biology
* The primary goal of Bioinformatics is to increase the understanding of Biological processes, however its focus is on developing and applying computationally intensive techniques e.g. pattern recognition, data mining, machine learning, algorithms, and visualization to achieve this goal. Major research efforts in the field include sequence alignment, gene finding, genome assembly,, drug design, drug discovery, protein structure alignment, protein structure prediction, prediction of gene expression and protein-protein interactions, genome-wide association studies and the modeling of evolution.

**Eligibility**

* 10+2 with science stream.

**Courses**

* B.Sc. Bioinformatics
* BE Bioinformatics,
* B.Sc. + M.Sc. integrated Bioinformatics
* B.Tech Bioinformatics
* MBA Bioinformatics
* M.S. Bioinformatics
* M.Sc. Bioinformatics and Biotechnology
* M.Tech. Bioinformatics

**Institutions/colleges/universities**

* 1. **B.Sc. Hon Bio-chemistry**

**Introduction**

* Bio-chemistry is an under graduate 3-year degree course.
* It is the study of chemical process in living organisms.
* It includes the study of Bio-organic chemistry. Bio-physical chemistry, Human Physiology, Micro-biology and virology, Basic Immunology, Enzymes etc.
* It also includes the study of structure and functions of cellular components such as proteins, carbohydrates, lipids, nucleic acids and other bio-molecules involved in biological processes such as growth, metabolism, reproduction, heredity etc. as well as the effect of the environment on living organisms. In other words B.Sc. Bio-chemistry course covers study of the minutest characteristics of organisms and their biological processes.
* It is a career originating course that opens many bright job prospects.

**Eligibility**

10+2 with PCB

Some reputed colleges do conduct entrance examination to get to the course. Selection in these colleges is based on marks secured in the final merit i.e. total marks aggregated in the final exams of 10+2 and the entrance exam.

**Courses**

B.Sc. Hon, M.Sc.

**Institutions/colleges/universities**

* DU
* JMI
* AMU
* And other private colleges.
  1. **B.Sc. (Hon) Bio-technology**
  2. **B.Sc. (Hon) Botany**

**Introduction**

* it is a 3-year undergraduate course which can be pursued by aspirants who have completed their 12th class with good marks. This course deals with the study of general aspects concerning plant life. Aspirants who successfully complete this course will have a promising career ahead.
* B.Sc. Botany graduates have numerous higher study options available.
* These graduates can do numerous certifications as well.
* They can work in several job profiles

**Eligibility**

10+2 with PCB

**Jobs available**

After PG level there are plenty of jobs are in waiting.

* Teacher in schools and olleges
* Farming Consultant
* Environmental Consultancies
* Plant Pathologies
* Molecular Biologist
* Nursery Manager
* Ecologist
* Plant Explorer

**Institutions/colleges/universities**

* DU colleges, admission strictly on merit
* JMI
  1. **B.Sc. (Hon) Chemistry**

**Introduction**

It is an undergraduate course which deals with the science of matter and the changes it undergoes. The science of matter is also addressed by Physics, but while Physics takes a more general and fundamental approach, Chemistry is more specialized, being concerned with the composition, behavior, structure and properties of matter as well as the changes of it under-goes during the chemical reactions. B.Sc. Chemistry is physical science course which studies various substances, atoms, molecules, crystals, and other aggregates of matter whether in solution or combination, and which incorporates the concepts of energy and entropy in relation to the spontaneity of chemical processes. B.Sc. in Chemistry is of 3-years duration course six semesters.

**Eligibility**

10+2 with PCM or PCB

**Courses**

B.Sc. Hon, M.Sc.

**Institutions/colleges/universities**

* DU
* JMI
* AMU
* And other private colleges.
  1. **B.Sc. Fisheries Science (B.F.Sc)**

**Introduction**

* Fisheries Science is the academic Discipline of Managing and understanding Fisheries
* It is multidisciplinary science, which draws on the disciplines of aquaculture including breeding, genetics, biotechnology, nutrition, farming, diagnoses of diseases in fishes, other aquatic resources, medical treatment of aquatic animals, fish processing including curing, canning, freezing, value addition, byproducts and waste utilization, quality assurance and certification, fisheries microbiology, fisheries biochemistry,
* Fisheries resource management including biology, anatomy, taxonomy, physiology, population dynamics, fisheries environment including oceanography, limnology, ecology, biodiversity, aquatic pollution.
* Fishing technology including gear and craft engineering, navigation and seamanship, marine engines, fisheries economics and management and fisheries extension.

**Duration**

* Fisheries science is generally **4-year** course typically taught in a university setting, and can be the focus of an undergraduate, postgraduate or Ph.D program

**Eligibility**

* 10+2 in science stream (PCB)

**Institutes**

* Central Institute of Fisheries Education
* CIFE
* CENTRAL Institute of Fisheries Education, Versova, Mumbai.
* Central Institute of Fresh water Aquaculture, Orissa
* Central marine Fisheries Research Institute, Kerala
* National Institute of Oceanography, Dona Paula, Goa.
* IIT, West Bengal
* Central Institute of Food technology, Kerala
* National Bureau of Fish Genetic Resources, Lucknow

**Career growth in Fisheries**

* Own business
* Assistant Fisheries Development Officer.
* Fisheries Extension Officer
* District Fisheries Development Officer

**Central government**

* Marine Product Export Development Authority
* FAO
* NACA
* Fisheries Survey of India
* NIO
* NABARD
* WHO
* EIA
* Academic Institutes (can apply as a research Assistant)
* Bio-chemist
* Asst. Professor (with M.F.Sc.degree) in faculty of Fisheries.

**National Banks**

* Field Officer or even Manager in Agriculture Loan Section

**Private Sector**

* Sea food Processing and Export Industry
* Fishing Gear Industry
* Aqua Feed Plant
* Pharmaceutical Companies
* In the area of Designing, Construction, management of fish-farm and hatcheries

**Foreign Jobs**

* Job opportunities in Australia, Japan, USA, Canada, china and European Countries. Gulf and many African Countries

***Deep sea Exploration for those who are interested in it***

* 1. **B.Sc. Food Quality Assurance**
  2. **B.Sc. Forestry**
* It provides the students with the knowledge and training about forestry
* It trains the students about the knowledge and training about Forestry.
* Forestry program trains students in managing of forests, new plantation, maintaining old plantations and other natural resources.
* The main aim of forestry studies is the creation and implementation of systems and framework for sustainable continuation of forest resources and supplies and to make sure that non-renewable resources do not get extinct.
* During the program, students are offered theoretical and practical knowledge regarding forestry and other related fields.
* Forestry professionals have various duties to perform such as managing forests and forest supplies, generating awareness and implementing new technologies in the forestry department.
* Candidates who are keen to take up a career in forestry must have a spirit of adventure, enthusiasm for outdoor activities, physical fitness and should be adaptable to the new surroundings.
* They also should have a keen interest in global concerns and how to preserve the environment.

**Duration of the course**

* 4 yers.

**Fee**

* 30,000/year

**Eligibility**

* 10+2 in any stream with minimum 50% marks.

**Courses**

* UG, PG and Ph.D.

**Career options nd Job Prospects**

* Students, after pursuing B.Sc. in Forestry can find work, both in public and private sectors.
* They can work with Indian Council of Forestry Research and Education and various affiliated Forestry Research Institutes such as Institute of Social Forestry, Eco-rehabilitation, Forest Research Institute etc.

**Popular Forestry Employment Areas**

* Indian Council of Forestry Research and Education
* Forest Departments
* Zoological Parks
* Horticulture Departments
* Wildlife Research Institute
* Wildlife Department
* National Parks and Sanctuaries
* Wildlife Ranges
* Forest Nurseries
* Colleges and universities

**Listed below are suitable jobs**

* Assistant Manager
* Farming Manager
* School teacher
* Agri-Credit Manager
* Nursing Manager

**Institutes/colleges/universities**.

* Doon School Group.
* Vishwakarma University, pune.
  1. **B.Sc. (Hon) Geology**

**Introduction**

* Geology is the science that comprises the study of the solid earth and the process by which it is shaped and changed.
* Geology provides primary evidence primary evidence for plate tectonics, the history of life and evolution and paste climates.
* In modern times geology is commercially important for mineral and hydrocarbon exploration and for evaluating water resources
* Important for the prediction and understanding of natural hazards. The remedial of environmental problems and providing insight into paste climate changes
* It plays an important role in geotechnical engineering
* It is a major academic discipline.

**Eligibility**

* 10+2 with science

**Courses**

* B.Sc., M.Sc. M.Phil., Ph.D.

**Employment areas**

* Teacher in school, college and university
* Oil companies
* Research labs.
* Content writing (geology)

**Institutes/Colleges/universities**

* AMU
* Maharishi Dayanand University, Delhi Road, Rohtak
  1. **B Sc. Genetics.**

**Introduction**

* Genetics is a branch of biology that covers all the branches under **genes,** variations and heredity and evolution in all the living organisms.
* Students are offered in-depth knowledge about how genetic traits are passed down from one generation to another
* The course includes topics from the subjects like Bio-chemistry, Genetic Engineering, Model Organisms, Microbiology, Cloning etc.
* Students who want to pursue Genetics must have a keen interest and an in-depth knowledge of medical genetics and cloning.
* They are also required to have an understanding of both old and new genetic theories.
* It is becoming a widely popular course among students these days, because of the new techniques and technological advancement in the field of genetics and life sciences have led to various new discoveries in the respective fields.

**Eligibility**

10+2 in Science

**Duration of Course:** 3 years

**Courses**

UG, PG and Research

**Job prospects**

* It opens career opportunities in various fields such as genetics, Material science, life sciences, bio-technology, Bio-medical sciences, Physical Sciences, Chemical Sciences etc.
* Can go to higher studies like M.Sc, M.Phil. after post graduation they are eligible for lectureship.
* Some other employment areas;

1. Hospitals
2. Research Centres
3. DNA Forensic Departments
4. Animal Breeding Industry
5. Consultancies
6. Biotechnology Industries
7. Food Processing Industries
8. Healthcare centres
9. Agricultural Firms
10. Pharmaceutical Firms/industries
11. Genetic Testing labs
12. Diagnostic Centres
13. Colleges/Universities

**Jobs Available**

* Consultant
* Genetic Lab Technician
* Regulatory Process manager
* Data Specialist
* Animal Breeder
* Forensic Scientist
* Bio-technician
* Clinical Researcher
* Genetic Laboratory Research Technician
* Genetic clinical Scientist
  1. **B.Sc. Home Science**

**Introduction**

Home science is not only a science, it is also an atr form which draws and synthesizes the knowledge, concepts, and theories from arts, science and humanities. It is th art of managing resources efficiently and the science of improving home life, family life and intellectual thinking.

There is only a marginal difference between BA Home Science and B.Sc. Home Science. The difference lies in matter of certain topics being covered and the fact that the B.Sc. Home Science requires the study of physics, Chemistry, Biology and Mathematics in 10+2

**Eligibility**

10+2 in any stream for BA Home Science

10+2 with science subjects for B.Sc. Home Science

**Courses**

BA and B.Sc.

**Institutions/colleges/universities**

Different Colleges of DU

JMI

AMU, Aligarh

* Generally the course is undertaken by girl students, but there is no restriction for boys as such.
* After completing the BA or B.Sc. in Home Science, one can pursue the masters in the subject.

**Specialization**

There are five major components or areas of specialization in Home Science

* Food and Resource
* Fabric and Human Communication
* Nutrition Management
* Apparel Science Development, and
* Extension Today

Home Science is so advanced that each specialization is a domain in its own with its areas of specialization and Vocational/professional opportunities. Some of the areas of further specialization are as follows.

**Main Branch**

**Food and nutrition**

* Food science
* Clinical and community nutrition
* Institutional food service

**Home Science in daily life**

* Fabric and Apparel
* Clothing construction science
* Textile Science
* Textile designing
* Garment designing
* Care and maintenance of clothes
* resource management
* interior decoration
* consumer Education
* child welfare
* Adolescent marriage and family guidance
* Care of the elderly
* Care of special children
* Program planning and evaluation
* Training and capacity building
* Management of community service organization

A number of opportunities are available in private industry and Government and social sector, personal requirement of special children and elderly where one can find jobs and satisfaction.

* 1. **B.Sc. Horticulture.**

**Introduction**

* It is a UG Program that will help one build a career in Agriculture/Plantation/Management/research and Development sector
* Students who have an interest in plant cultivation, research in the field of plant genetics and outdoor work may pursue this course.
* Job opportunities available in Govt. and Private sectors especially after PG.
* One has a good chance to build a rewarding career in the R & D sector.
* It is all about cultivation of plants, starting from seed related study to scientific study of cultivation, genetics of plants, plant diseases etc.
* In short it is all about the application of scientific knowledge in plant cultivation and thus increase productivity and yield.
* For achieving the said goal of improved productivity, this branch makes use of concepts of Biology, Bio-chemistry, Genetic Engineering etc.
* Apart from the theoretical subjects and practical sessions, hands on industrial and field training programs also form an integral part of B.Sc. Horticulture program.

**Eligibility**

10+2 in science stream (PCB)

Register for state level entrance test

**Courses**

UG & PG course and Advanced Ph.D. in the subject

**Job opportunities in Govt. Sector**

* Office level posts
* State wise Agriculture Department
* State wise forestry Departments
* Spice/coir/rubber Boards etc

**Job opportunities in private Sector**

* Private Plantation
* Agricultural Machinery and equipment manufacturing firms
* Ornamental Plants and flowers business
* Food production and technology Industry

**B.Sc. Agriculture or B.Sc. Horticulture, Which is better?**

* B.Sc. Agriculture is more demanding than B.Sc. Horticulture
* Horticulture is a part of Agriculture
  1. **B.Sc. Industrial Chemistry.**

**Introduction**

* It is the branch of chemistry which applies physical physical and chemical processes towards the transformation of raw materials into products that are of benefit to humanity.
* It provides a broad education within chemistry with application of mathematical, engineering and management principles.

**Eligibility**

* 10+2 science

**Scope of the subject**

* If the course is studied with a reconised university, the chances of getting good position are very high.
* Options are available for an Industrial job or research field.
* In Industrial side you can select the manufacturing, production or development units.
* If you opt for higher education option for research is available.
* After research, you can join a laboratory or a research unit.
* MBA is another option to choose.
* It has huge application in various fields like pharmaceutical companies, polymer processes, petro-chemical industries and now a days it is very much useful in food and beverage industry.

**Courses**

* UG, PG and Ph.D.

**Colleges**

* DU Colleges
* AMU
* University of Kalicut
  1. **B. Sc. (Hon) Mathematics**

**Introduction**

Mathematics is the science that deals with the logic of shape, quantity and arrangement. Math is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture (ancient and modern), art, money, engineering and even sports. The word comes from the Greek word ‘mathema’ meaning science, knowledge or learning and is sometimes abbreviated to **maths** in England, Australia, New Zealand or **math** in USA and Canada.

* Mathematics is useful for solving problems that occur in the real world, so many people beside mathematicians study and use mathematics.
* Some knowledge of math is required in almost all the jobs.
* People working in business, science, engineering and construction need some knowledge of mathematics.

**Areas of study in mathematics**

* **Number:** it includes the study of numbers and quantities
* **Structure:** many areas of mathematics study the structure that an object has.
* **Change:** some areas of mathematics study the way things change. Most of these areas are part of the study of analysis.

**Applied mathematics**

1. Mathematical finance
2. Banking
3. Insurance companies
4. Software companies
5. Game applications
6. Management firms.

**Eligibility**

* 10+2 with Mathematics as one of the subjects.
* Admission in DU Colleges strictly on merit
* Cut off percentage remains about 98.

**Courses**

* B.Sc. Hon, M.Sc., M.Phil., Ph.D

**Institutes/colleges/universities**

* Christ University, Bangalore
* Fergusson College, Pune
* Oxford College of Science
* Mount Carmel College, Bangalore
* St. Joseph College, Kalicut
* University of Lucknow
* Ranchi University
* Jamia Hamdard, Delhi
* University of Delhi
* JMI
* AMU
* And many other colleges.

**7 countries that have smart mathematics students**

1. Singapore
2. Australia
3. Russia
4. Iran
5. Japan
6. China
7. India.
   1. **B.Sc. Microbiology**

**Introduction**

* Microbiology is the study of microorganisms, which are microscopic, unicellular, and cell-cluster.
* This includes eukaryotes such as fungi and protists and prokaryotes
* Viruses and prions though not classified as living organisms are also studied in Microbiology.
* It typically includes the study of the immune system or immunology

**Eligibility**

* 10+2 science (PCB)

**Duration**

* 3 years

**Courses**

* UG and PG (M.Sc.), M.Phil., Ph.D.

**Employment Areas**

* Colleges, Universities
* Development laboratories
* Hospital pharmaceutical Sector
* Food Industry
* Beverage units
* Chemical industries

**Job Types**

* Bacteriologist, Industrial Microbiologist, Virologist , Mycologist , Biochemist, Proto Zoologist, Geneticist

**Colleges**

* Institute of genetic Engineering, Kolkata
* DU colleges
* St. Xavier’s college, Kolkata

* 1. **B.Sc. (Hon.) Molecular Biology**

**Introduction**

* It is the branch of Biology that deals with the molecular basis of biological activity.
* This field overlaps with other areas of Biology and Chemistry, particularly with Genetics and Biochemistry.
* Molecular-biology chiefly concerns itself with understanding and the interactions between the various systems of a cell, including interactions between different types of DNA, RNA and protein biosynthesis as well as learning how these interactions are regulated.

**Eligibility**

* 12+2 Science (PCB)

**Duration**

* 3 years

**Courses**

* Molecular Biology B.Sc. Hon.
* M.Sc. Hon Molecular biology and Biochemistry.
* M.Sc. Molecular Biology and genetic Engineering.
* M.Sc. Molecular Biology.
* M.Tech. Molecular Biology and human Genetics.
* M.Tech. molecular Medicines.
* Certificate course in Molecular and human Genetics

**Institutions/colleges/universities**

* DU
* JNU
* Indian Agriculture Research Institute, PUSA. (for M.Sc.)
* And many Institutes in other states.
  1. **B.Sc. (Hon) Nanotechnology**

**Introduction**

* It is the study of manipulating matter on an atomic and molecular scale
* Generally nanotechnology deals with structures sized between one to hundred nanometers in at least one dimension within that size.
* Quantum mechanical effects are very important at this scale, which is in the quantum realm.
* Nanotechnology is very diverse, ranging from extensions of conventional device physics to completely new approaches based upon molecular self-assembly, from developing new materials with dimensions on the nano-scale to investigating whether we can directly control matter on the atomic scale.

**Eligibility**

* 10+2 science

**Courses**

* 1. B.Tech.—Electronics and Nanotechnology 2. B.Tech 3. MBA Nanotechnology 4. M.E.

5. M.Sc.—Nano Science & Technology 6. M.Sc Nanotechnology 7. M.Tech. Nano Science & Technology and many more.

**Employment Areas**

* Product Development
* Forensic Science
* Biotechnology
* Genetics
* Health industry
* Environmental Industry
* Space Research
* Agriculture
* Private Research Institutes

**Colleges/institutions/universities**

* S.N.R. Sons College, Coimbatore.
* Lovely professional University, Jalandhar.
* Institute of Management and Technical Studies, IMTS, Noida

**.34 B.Sc. Nursing**

**Introduction**

* Post Basic B.Sc. Nursing Course prepares the Nurses for a wide variety of professional roles and graduate study.
* The aim of this program is to prepare graduates to assume responsibilities as professionals, competent nurses and midwives in providing promotive, preventive, curative and rehabilitative services, who can make independent decisions in nursing situations
* Protect the rights of individuals in pursuit of health.

**Eligibility**

10+2 Science

**Duration**

3-year degree course

* 1. **B.Sc. Nursing**

**Introduction**

* Bachelor of Science (Nursing) prepares nurses for a wide variety of professional roles and graduate study.
* Course work includes nursing science, research, leadership, and related sciences that inform the practice of nursing.
* It also provides the students with general education in math, humanities and social sciences.
* An undergraduate degree affords opportunities for greater career advancement and higher salary options.
* It is often a prerequisite for teaching, administrative, consulting and research role.

**Eligibility:** 10+2 Science

**Duration**: 3-year degree course

* 1. **B. Sc. (Hon) Physics**

**Introduction**

it is an undergraduate degree. The time period is 3 years, same as in B.Sc. general. B.Sc. Hons is considered to be superior as compared to the B.Sc. general course. It is also considered that getting a job with B.Sc. Hon is easier than getting a placement with B.Sc. general.

**Eligibility**

12+2

**Institutions/colleges/universities**

* Colleges of DU
* JMI
* AMU
* Certain other private colleges.
  1. **B.Sc. (Hon) Statistics**

**Introduction**

It focuses on the collection, meaningful segregation and interpretation of collected data. The curriculum is designed to teach students subjects like probability and permutation. After graduation one can pursue courses like actuarial science. It is a 3-year degree course. Graduating in Statistics opens up a variety of career opportunities for students

**Eligibility**

10+2 with Math as one of the subjects

**Job opportunities**

* One can become a business analyst
* Statistician are also required in government sector to work on studies and research on consumer prices, fluctuations in the economy, employment patterns, population trends etc.
* Opportunities are also available in private sector in marketing insurance and Information and Technology.

**Courses**

B.Sc. M.Sc.

**Colleges/universities**

* IIT Delhi.
* International management Institute, Delhi,
* Entrepreneurship Education, Mumbai.
* Narsee Monjee Institute of Management Studies, Mumbai.
* Vishwakarma University, Pune.

**Average fee**

* Rs. 50,000 per year.

**After UG**

* M.Sc. Actuarial science
* M.Sc. in Library and information science.
* M.Sc.in Quantitative Economics.
* MCA.
* MBA.
* P.G. Diploma in statistics.
  1. **B.Sc. (Hon) Zoology**

**Introduction**

it is an undergraduate degree course. The branch of Biology relates to the animal kingdom, including the structure, embryology, evolution, classification, habits, and distribution of all animals, both living and extinct.

Zoology graduates can expect a bright future ahead. The course is career oriented in nature that opens many job opportunities for the graduates.

**Eligibility**

10+2 in PCB

**Courses**

B.Sc. Hon. , M.Sc. , Ph.D.

**Institutions/colleges/universities**

* DU colleges, admission strictly on merit
* JMI
* AMU
* CCSU
* Many other private colleges
  1. **BVSc. Veterinary Science**
  2. **B.Sc. Anesthesia Technology.**

**Introduction**

Anesthesia or Anaesthesia is a state of controlled, temporary loss of sensation or awareness that is inducted for medical purposes. It may include some or all analgesia, paralysis, amnesia and unconsciousness. A patient under the effects of anesthesia drugs is referred to as being anesthetized

Anesthetists are specialist doctors who are responsible for providing anesthesia to patients for **operations** and procedures. In addition Anesthetists have range of practice which extends beyond anesthesia for surgery to include pain management and intensive care.

The role of the **Anesthesia Technologist** is to support the work done by the professional **Anesthesia** personnel. **Anesthesia Technologists** are responsible for managing the **anesthesia** equipment and for its proper maintenance.

**Eligibility**

10+2 with PCB WITH AT LEAST 50% MARKS

**Career in Anesthesia**

It is one of the most useful areas in the field of healthcare. Anesthetists may find many job opportunities. Employable they are in medical universities and schools, public sector, out-patient care center, specialty hospitals, office of physicians etc.

**Courses**

B.Sc. M.Sc

**Institutions/Universities**

Some of the top institutes

* All India Institute of Medical Sciences (AIIMS)
* Aligarh Muslim University, Aligarh
* Mahatma Gandhi Mission Institute of Health Science, Mumbai
* Indira Gandhi Medical College. Shimla
* Armed Force Medical College, Pune.
  1. **B.Sc. Audiology & Language Pathology (BASLP)**

**Introduction**

The bachelor of Audio and Speech Language Pathology is a course to generate skilled and efficient man power to work effectively with persons having communication disorders. The course is advisable to those who have a passion to work with differently able people in the society and to make a change in their lives.

Speech therapy is an allied branch of health sciences related to the disorder of speech, voice and language of a person. Speech therapy and audiology have become promising career options in recent times. A person who has a degree or diploma in speech therapy is called a speech therapist. The growing awareness among people to treat speech and auditory disorders has increased the demand for these experts. As a result a career as a **speech therapist** is proving to have great potential for aspiring students.

**Eligibility**

10+2 (PCB & PCM)

**Courses**

B.Sc. BASLP

**Course duration**

3+1 divided into 6 semesters and a final year of internship

**Institutions/Universities**

There are 32 Audiology & Speech Therapy in Paramedical colleges in India.

1. Guru Gobind Singh Medical college and Hospital, Faridkot
2. SGT University, Gurgaon
3. Faculty of Allied Health, Chennai
4. Trishna College of Paramedical and Polytechnic, Dilshad Garden, Delhi.
5. GGSIPU, Dwarka, Delhi and others
6. AIIMS, Delhi
7. University college of Medical Science, Delhi
8. Pt. Bhagwat Dayal Sharma Medical College, Rohtak
9. Hamdard Institute of Medical Science and Research, Delhi
10. Jamia Hamdard University, Delhi
11. Amity University, NOIDA
    1. **Bachelor of Dental mechanics (BDM)**
    2. **Bachelor of Pharmacy**
    3. **Bachelor of Physiotherapy**

**Introduction**

* It is an Undergraduate course in the field of Medical Science’
* Physical Therapy Programs provide core skills like manual therapy, therapeutic exercise and the application of electro physical modalities, to the prospective students. The course focuses on the use of physical therapy, massages, physical movements and the exercise to improve and cure injuries, deformities and diseases.
* Physiotherapy doesn’t rely extensively on the use drugs and medicines. Instead, it relys on the physical treatment to improve the situation.

**Eligibility**

* 10+2 PCB

**Courses**

* UG and PG (in, Cardiopulmonary, Neurology, Orthopeadics, Sports, community Rehabilitation, Obstetrics & Gynecology, Neurology, Cardiology, )

**Duration**

4 years plus 6 months internship, i.e. 4 and a half year in total

**Employment Areas**

1. Educational Institutions. 2. Hospitals. 3. Health Institutions 4. Schools for the mentally retarded children. 5. Sports training facilities. 6. Orthopedic departments. 7. Fitness centres

**Job Profiles**

1. Lecturer. 2) Osteopath. 3) Physiotherapist. 4) Sports Physio Rehabilitator. 5) Therapy Manager

**Institutions/Colleges/Universities**

* Sri Guru Gobind Singh University
* Jamia Hamdard
  1. **B.Sc. Bio-informatics**
  2. **B.Sc. Bio-medical Science.**
  3. **B.Sc. Bio-technology (32)**
  4. **B.Sc. Cardiac Care Technology**

**Introduction**

It is a 3-year full-time under graduate course divided into 6 semesters. It is an allied course in medicine. Cardiac technologists assist physicians during invasive cardio-vascular testing. A tube is inserted into one of the blood-vessels that carry blood into the heart.

The job of a technician is to perform tasks that require less medical training before and during the procedure, so doctors can focus on the results of the test.

A patient’s life may depend on the efficiency Cardiac care technologists.

**Eligibility**

10+2 in science (PCB) from any recognized educational board. Minimum aggregate 50% marks.

**Course**

B.Sc. cardiac care technology

**Admission process**

Entrance test. Counseling after qualifying the entrance examination.

**Recruiting areas:** Private clinics, hospital administration, research and medical colleges etc.

**Job avenues**

* Cardiovascular technologist Rs. 6,68,000/per year.
* Medical sonographer, Rs. 7,00,000/year.
* Cardiologist, Rs. 16,00,000/year.

**Institutions/Colleges/university**

* Rajiv Gandhi Para medical Institute, Delhi, 10,000.
* Christian medical college, Vellore, (Fee- I,13,000 per year).
* Geetanjali University, Udaipur, (70,000 per year).
  1. **B.Sc. Cardio Vascular Technology**
  2. **B.Sc. Diabetes Sciences**
  3. **B.Sc. Dialysis Therapy**
  4. **B.Sc. Echocardiography**
  5. **B.Sc. Emergency Medical Technology**
  6. **B.Sc. Environmental Science (37)**

**Introduction**

The course offers extensive knowledge regarding environment and impact on human activities on wild life and study of ecological balance. It evokes awareness and makes the students capable of solving various problems that threaten the eco-system. The program also prepares the students for advanced research in the field of eco-system and wildlife conservation.

Graduate in this field have bright career opportunities and a chance to improve the living conditions of various living beings.

**Eligibility**

10+2 science with 50% marks minimum aggregate. (PCM)

Lateral entry option: it is open for candidates who have pursued 3-year polytechnic diploma after 12th class.

**Admission Process**

Merit-based: directly on the bases of score obtained in 10+2

Entrance-based: on the basis of score obtained in national level, state level or college level entrance exam.

**Courses**

B.Sc. M.Sc.

**Course fee**

Rs.20,000-Rs 50,000.

**Career options and job prospects**

There is a lot of scope for graduates and post graduates as awareness regarding the environment is increasing amongst the young individuals. There are a lot of jobs to be pursued after graduation as;

* Catastrophe Modeler
* Conservation Hydrologist
* Director of waste management
* Environmental Researcher
* Environmental journalist
* Environment Photographer
* Forest Carbon Specialist
* Wild-life Film-maker

**Salary: Rs 1.2---Rs.2.5 LPA**

**Colleges/Institutions**

There are 50 environmental colleges in India.

* Vidya jyoti Eduversity, Chandigarh
* Fergusson College, Pune
* Patna Science College, Patna
* Amravati University,
* Indian Institute of Science
* IIS University, Jaipur.
* Mbitious Institute of Professional Studies, Delhi
* Netaji Nagar for women, Kolkata
* Other colleges at Ambala, Gondia, Aurangabad, Bareilly, Murshidabad, Solapur etc.

* 1. **B.Sc. Forensic counseling.**
  2. **B.Sc. Forensic-science,**

**Introduction**

* It is a 3-year graduation course which involves the application of scientific knowledge to the investigation of crimes. Professionals in this discipline apply their knowledge of science to analyze the evidence found at a crime scene.
* An analysis could involve anything from an object at the crime scene, to soil, blood stains, saliva, body fluids, bones, finger prints, DNA profiling, recovering data from computers, researching new technologies etc.
* Its syllabus includes essential components such as Forensic Pathology, Psychiatry, Psychology, Forensic medicine and Odontology (Dentistry)

**Eligibility**

10+2 with science stream

**Courses**

Diploma in Forensic science and criminology,

Diploma in Forensic science and law

Graduation and PG

**Institutions/colleges/universities**

* Sharda University, Greater Noida
* Lovely Professional University, Jalandhar
* University of Mumbai
  1. **B.Sc. Genetics**
  2. **B.Sc. Green Technology**
  3. **B.Sc. Health management.**
  4. **B.Sc. Histopathology.**
  5. **B.Sc. Lab technology,**
  6. **B.Sc. Lab-technician (Pathology)**
  7. **B.Sc. Intensive Care Technology**
  8. **B.Sc. Medical Imaging technology**

**Introduction**

* It is a 3-year degree course.
* The discipline involves the techniques and processes employed in creating images of human body parts for clinical purposes or in medical science.

**Eligibility**

* 10+2 science (PCB)

**Fees for the Course**

* Rs. 2 to 5 lacs

**Salary**

* Rs. 3 to 10 lacs

**Colleges**

* Institute of Public Health & hygiene, 011-26782850-54
* Jamia Hamdard
* Government Medical College, Amritsar
* Ansal university, Gurgaon
* Amity Institute, Noisa
* Sharda University, Greater Noida.
* Pandit Bhagwat Dayal Sharma University of Health Sciences
  1. **B.Sc. Medical Lab Technology**

**Introduction**

* It is allied health specialty program concerned with the diagnosis, treatment and prevention of diseases through the use of clinical laboratory tests.
* Professionals play a critical role in collecting the information needed to give the best care to an ill or injured patient.
* Medical practice is literally not possible without the test performed in the laboratory.

**Eligibility**

* 10+2 (Science- PCB)

**Courses**

* UG and PG courses’

**Employment opportunities**

* Medical lab professional have a no. of choices of practice settings, such as hospitals, clinics, nursing homes, public health facilities, commercial laboratories etc.
* In these settings, communication and research skills are highly valued.

**Average course fee**

* Rs. 10,000 to 4 lacs

**Colleges/institutes/universities**

* 1. **B.Sc. Medical Radiologic Technology**
  2. **B.Sc. Medical Record Technologies**

**Introduction**

* This course plays a key role in maintain the patients records and to promote research of quality in the financial interests of the patient of the hospital with an excellent statistical reporting system.
* Students learn about billing and how to use medical office software.
* Aspiring medical record technicians enroll in this program learn to operate and manage the newest electronic record system being used by healthcare facilities.
* In addition to this they learn old fashion filing, record retrieval etc.

**Eligibility**

* 10+2 in PCM, percentage of marks required—45 or 50

**Duration**

* 3-year degree course

**Who is suitable for the course**

* Students who want to go for further gigher degree courses such as Masters, M.Phil. and Ph.D. are suitable for this course.
* Candidate should be a hard worker, can work hours in the lab, and should have a team spirit.

**Skills Required**

* Attentive towards the people.
* Can understand the written sentences.
* Should manage his own time and others time as well.
* They should convey information effectively.
* Computer skills.

**Job Prospects**, Excellent, there is a great demand for experienced MRT.

**Institutions/colleges/universities**

* Chennai Medical College Hospital & Research Institute, SRM University
* Hamdard Institute of Medical Science.
* All India Institute of Medical sciences (AIIMS), New Delhi.

* 1. **B.Sc. Medical lab technology**
  2. **B.Sc. Neurophysio-Technology**

**Introduction**

* Neurophysio Technology is a discipline within Healthcare Science where healthcare Practitioners and Healthcare Scientists measure the functions of nervous system to ensure normalcy and help in the diagnosis and monitoring of the progress of Neurological disorders.
* Healthcare Practitioners and Healthcare Scientists perform a range of different tests in patients of all ages, all of which require a considerable amount of patient contact and also good communication skills, as each involves attaching electrodes to the patient and encouraging co-operation before the recordings can be made.
* Clinical Neurophysiology departments are usually based in hospitals and linked to neurological centres.
* Most investigations in Neurophysiology are recorded in dedicated environments, however they are also performed at the patient’s bed site, in intensive care units, and also in operation theatres.
* These studies measure the function of the peripheral nerves responsible for movement and sensation.
* The nerves are tested by applying a small electrical current to them and recording the response.
* These tests are performed by healthcare practitioner, healthcare scientists and also clinical Neurophysiologists.

**Eligibility**

* 10+2 science

**Admission:** through entrance exam.

**Institutions/colleges/universities.**

* AIIMS
* Sharda University, Greater NOIDA
* LLRM Medical College, Meerut
* Ansal University, Gurgaon.
* Pt. Bhagwat Dayal Sharma, PG Institute of Medical Sciences, Rohtak
  1. **B.Sc. Nutrition and Dietetics.**
  2. **B.Sc. Operation Theatre Technology**
  3. **B.Sc. Operation Theatre Technology**

**Introduction**

* B.Sc in **Operation Theatre Technology** is related to all the work and management of the **Operation Theatre** .
* The course prepares students for managing the patients as well as for monitoring ins and outs of an **operation Theatre.**
* During the study, students are responsible for looking after all the surgical instruments as well as their sterilization.
* Student assist the surgeon during operations and closely look after the drugs , anesthesia gases, drapes, and sterilization requirements during surgery.
* In addition minor tasks of arranging operation theatre table, anesthesia table and managing the staff prepare a professional Operation Theatre Technician.

**Eligibility**

* 10+2 Science at least 50% in E and PCB

**Duration of the course**

* Degree Course--4 years
* Diploma Course—2 years

**Career prospects**

* At the completion of the course, students are allowed to assist Doctors in Operation Theatre.

**Institutes/colleges/universities**

* RAMA University (Phone no. 1800 1020 449)
* Shivalik Institute of Paramedical Technology – SIPT, Chandigarh
* Institute of Paramedical Technology,, New Delhi
* Anand Institute of Medical Science, Ludhyana.
* SGT University, Gurgaon.
* Integral University, Lucknow
* National Institute of Management and Technology, Noida
* Bhagwant University, Ajmer
* AISECT University, Bhopal
  1. **B.Sc. Optometry**

**Introduction**

* Optometry deals with vision which involves examining, diagnosing, managing and treating diseases of the eye. B.Sc. Optometry is a branch of medicine dealing with eye equipment which includes spectacles and contact lenses.
* It helps Optometrists to treat patients to improve their sight.
* Students studying in this course will be able to work as opticians, refractionists, optometrist and ophthalmic assistants and help people with eye problems.
* An Optometrist has to examine a patient for any sign of the disease that might might need medical attention.
* Optometrist treats patients for binocular vision, low vision and also for dyslexia.

**Eligibility**

* 10+2 science (PCB and PCM)

**Duration of course**

* 4 years

**Entrance Tests**

* EYECET
* AIIMS Exam
* JNU Entrance Exam.
* DU Entrance Exam and CMC.

**Institutes/colleges/universities**

* Ashray Institute of Paramedical Sciences, Delhi
* National Institute for Education and Research. Delhi
* Rajiv Gandhi Paramedical Institute, New Delhi
  1. **B.Sc. Perfusion technology**

**Introduction**

* It is defined as those functions necessary for the support, treatment, measurement, or supplementation of the cardiopulmonary and circulatory system of a patient.
* The course involves the study of Physiology, Pathology and associated equipment used to support and/or assume the function the heart and/or lungs during medical procedures.
* The Perfusion Technologist prepare and operates the heart-lung machine and other sophisticated equipment as directed by healthcare physicians.
* The Perfusionist utilizes technology such as heart/lung machines, ventricular assist devices and artificial hearts, as well as pharmacological inventions to maintain the patient during the period of circulatory support.

**Eligibility**

* 12+2 (PCB)

**Courses**

* UG and PG, M.Phil. and Ph.D.

**Institutions/colleges/universities**

* Rajiv Gandhi University of Health Sciences, RGUSH, Bangalore
* JSS Academy of Higher Education and Research, Trissur.
* Frontier lifeline Hospital, Chennai.
* St. Johns Medical College, Bangalore.
* Pt. Bhagwat Dayal Sharma Postgraduate Institute of Medical Science, Rohtak
* Ansal University, Gurgaon
  1. **B.Sc. Physician Assistant**
  2. **B.Sc. Renal Dialysis Technology**

**Introduction**

* The course is designed to prepare students to administer haemodialysis treatments for patients with renal failure, under the supervision of a nurse or a physician.
* The course imparts essential instruction to enrolled students in basic anatomy and physiology, dialysis preparation, dialysis prescriptions interpretation, extracorporeal circuit , dialyzer set up and maintenance, patient preparation, equipment monitoring, vein puncture and local anaesthesia administration, taking vital signs, documentation and communication , safety and sanitation, emergency interventions and professional standards and ethics.
* It covers specialties like cardiac care technology, dialysis technology, respiratory care technology, dialysis technology, imaging sciences technology, clinical medical lab among others.
* Renal failure or kidney diseases, results in the accumulation of excess of wastes and fluids in the blood that Dialysis Technicians help remove through the operation of a Dialysis machine.
* Dialysis Technicians must have a thorough knowledge of how the dialysis machine functions and interacts with the human body.
* They are also responsible for cleaning and sterilizing the dialysis machine.

**Eligibility**

10+2 (PCB & PCM)

**Courses:** UG and PG

**Admission Process**

Counseling after taking entrance test or direct admission in some cases.

**Major Entrance Tests**

JEE Mains, BITSAT, COMEDK,SRMJEE, UPSEE

**Institutes/Colleges/universities**

* Rajiv Gandhi Paramedical Institute , New Delhi.
* Jamia Hamdard University
* Jawahar lal Nehru University
  1. **B.Sc. Respiratory Therapy**

**Other Science Options**

* 1. **Allied Science.**
  2. **Animal Husbandry and Dairying Program**

**Introduction**

This academic program is also known a Animal Husbandry and Dairy Technology. It deals with the aspect such as animal care, breeding and raising of livestock of those animals who give us meat, fiber, milk, eggs or other useful products. Dairy farming deals with aspects such as-milk production, dairy products, storage and preservation, marketing etc. this discipline uses the concept of biology and chemistry to boost milk production in cattle. It also deals with management of their shelter, food and nutrition.

The academic program gives adequate importance to classroom lectures, and practical training. This program gives a sizeable importance to the laboratory sessions. Students are acquaint with the knowledge such as- disease in animals, treatment technologies, shelter management, food and nutrition after completion of this course.

**Eligibility**

10+2 Science

**Duration**

The duration of regular classroom program is 3 years.

**Course**

B.Sc.

M.Sc..after graduation students may opt for M.SC. PG diploma, PG Certification.

**Fee:** college fee varies depending upon certain factors from Rs.20,000- Rs.2,00,000.

**Admission Process**

Seats are distributed among the deserving students on the basis of merit marks scored by them in relevant entrance exam or board exam.

**Job Prospects**

* Poultry farms,
* Zoological Parks,
* Veterinary clinics,
* Dairy Farms,
* Relevant Govt. departments.

**Salary**

Starting salary depends upon different factors such as Job location, profile of the employer, academic performance, skill and aptitude, job profile etc.

**Colleges/Universities**

There are 40 Animal Husbandry & Dairy Science colleges in India. at Jaipur, Allahabad, Pune, Delhi Institute of Management and Technology—Delhi, Chennai, Mumbai, Tirunelveli, Lalitpur, Nanded, Etc

* 1. **Archeology (55)**
  2. **Art Restoration (56)**
  3. **Astronomy and Astrophysics (5)**
  4. **Cardio vascular Care Technician, 2-years**
  5. **Clinical pathology.**
  6. **Computer Science (35)**
  7. **Curator (57)**
  8. **Educational/vocational School Counseling (58)**
  9. **Energy & Power—2 years, NIMS University, Jaipur**
  10. **Environmental Science (37)**

Fire & safety

**Introduction**

Fire Engineering can be defined as, the application of scientific and engineering principles, rules and expert judgments, based on understanding of the phenomenon and effects of fire, its reactions and behavior of people, property and the environment from the destructive effects of fire.

**Program highlights**

* To impart professional training in Fire engineering, Safety and Disaster management to cater to the needs of private and public sectors, government and municipal fire services in and out of India.
* To provide qualified and well trained fire service and safety personnel for the above mentioned organizations.
* To upgrade and modernize the fire fighting equipments through research and development.

**Job opportunities**

* Safety Manager
* Fire protection technician
* Safety Inspector
* Safety supervisor
* Fire Officer

**Courses**

* Diploma in Industrial Safety & Disaster management (10+2 any stream)—1 year
* Diploma in Fire & Safety management (10+2 any Stream)—1 year
* B.Sc. in Fire Tech.& Industrial Safety management (12+2 any stream)—3-year
* PG Diploma – Health, Safety & Environment (B.Sc./BE/B. Tech from any stream)—

1 year

* PG Diploma—Fire & Safety Management (Graduate in any Stream)—1 year
* PG Diploma –Industrial Safety Management (Graduate in any Stream)—1 year

**Admission Procedure**

* Admissions in Fire & Safety Management Programs are through University Joint entrance test (UJET), STATES & National level entrance test.
* Direct admission can be obtained on merit cum preference basis.
  1. **Geo-informatics**
  2. **Green technology.**
  3. **Material Science**
  4. **Merchant Navy**
  5. **Meteorology (23)**

**Introduction**

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

**Eligibility**

10+2 with PCM/PCB

**Courses**

* B. Tech, B. Sc
* M. Tech, M. Sc.

**Institutions**

* cochin University of Science
* 1. **Metallurgy (22)**

**Introduction**

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

**Courses**

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

**Eligibility**

10+2 with PCM

**Institutions/Universities**

* IIT Rurkee
* IIT, BHU
* National Institute of Technology, Tiruchirappalli
* Indian Institute of Engineering Science and Technology, Shibpur, Maharashtra
* Government Engineering College, Gandhinagar, Gujrat.
  1. **Monuments & Sculpture Restoration (59)**
  2. **Museology (60)**
  3. **Natural-resources and sustainable development.**
  4. **Naturopathy (50)**
  5. **Nuclear Science and Technology.**
  6. **Oceanography (42)**
  7. **Oil & Gas**
  8. **Rehabilitation Psychology (62)**
  9. **Physical Science (26)**
  10. **Rehabilitation Therapy (63)**
  11. **Social Work (64)**
  12. **Space Science.**
  13. **Special Educator (65)**
  14. **Speech Language & hearing (66)**
  15. **Statistical Science (43)**
  16. **Veterinary Science (44)**
  17. **Wildlife Biology (45)**
  18. **Natural-resources and sustainable development.**
  19. **Nutritionist**

**Engineering B.Tech. Courses**

* 1. **Aeronautical Engineering (1)**
* Aeronautical Engineering is one of the toughest Engineering course in India. the BE, B.Tech is a 4-year course full time course
* After successful completion of the course students can pursue their career as an Aeronautical Engineer.
* These engineers are then responsible for creating, developing normality in the technological field of space, defense, and aviation.

**Subjects involved in aeronautical Engineering**

* The full time 4-year course comprises of subjects like Material Science, fluid Dynamics, Essential of Propulsion, Structural Analysis, Aerodynamic theory, Material science and so on.
* These students can also get specialization like Navigation Guidance, communication, instrumentation, Methods of Production of products for Rockets, aero planes and Helicopters.

**Qualification Required**

* 10+2 with PCM with at least 50% in each subject.
* JEE for selection in Top IITs
  1. **Aerospace Engineering**

**Introduction**

* B.Tech. Program in **Aerospace Engineering** is aimed at imparting sound knowledge in the fundamental areas of the discipline and also exposes students to advanced applications of this knowledge
* It deals with research, design, development, construction, testing of aircraft and spacecraft. It is divided into two major and overlapping branches: namely aeronautical engineering related with aircrafts in the earth’s atmosphere and astronautical engineering that deals with spacecrafts that operate outside the earth’s atmosphere.
* **Aerospace Engineering** is the discipline which is closest to what is popularly known as ***“Rocket Science”***
* it is a 4-year degree course

**Eligibility**

* 10+2 with PCM
* IIT considers score of JEE and other institutions have their own separate entrance exams.
* There are several Entrance exams such as (MHTCET) conducted by the Institutes for admission process.

**Courses**

* B. Tech
* Dual degree in combination of a Bachelor and a Master degree.
* M. Tech with specialization courses
* Ph. D programs

**Institutes/colleges/universities**

* IIT kharagpur, Madras, Chinnai
* The neotia College, Kalkate
* Chadigarh University
* BITS Hyderabad
* IIT Delhi
* Delhi Technology University
* National Institute of Technology, Delhi.
* Netaji Subhash University of technology, Delhi..
* Indian Institute of Engineering Science and Technology (IIEST), West Bengal.

**Course Fee**

* 6-9 lacs

**Job opportunities**

* ISRO, DRDO, HAL, ONGC and NAL (all government sectors)
* Private sectors such as, global Airlines, Aircraft companioes.

**Average starting Salary**

* 5-10 lacs.

**Job positions**

1. Design Engineer, 2. Development Engineer, 3. Sensor Engineer, 4. Team Leader,

5. Filtration Manager etc.

**Avul Pakir Zainulabdeen Abdul Kalam**

His Excellency, 11th President of India was an aerospace scientist. He studied physics and aerospace engineering

* 1. **Aircraft Maintenance Engineering**

**Introduction**

* This Engineering course is most demanding and high profile career in aviation sector in India.
* **Aircraft maintenance engineers** inspect, repair and overhaul civil aircraft.
* Most engineers specialize in either Mechanical or avionic engineering.
* Mechanical engineering includes engines and airframes.
* They also follow up and fix any problems that aircrew may have reported with the aircraft.
* Aircraft maintenance Engineering is not a degree or diploma course, but a training program.
* On completion of the training, a license is issued by the directorate of Civil Aviation (DGCA).
* During the training, lessons are imparted for **service** and **maintenance** of **Aircraft** so as to ensure flight safety.
* Students who wish to work in aviation industry can study Aerospace or Aeronautical Engineering at the B.Tech. level or study Aircraft Maintenance Engineering.
* Aeronautical or Aerospace Engineering deals with the design and manufacture of Aircraft while AME trains one for servicing the Aircraft.

**Eligibility**

* 10+2 with PCM, at least 50% marks in aggregate in PCM.

**Total training cost**

* Around 1.5 lacs.

**Institutions**

* Centre for Civil Aviation Training, New Delhi, approved by DGCA
* Fly Tech Aviation Academy, Bowenpally, Secundrabad (A.P**)**

**Job opportunities**

* Those who successfully complete the training and obtain DGCA’s license are eligible to get jobs in airports and aircraft manufacturing or maintenance firms with an attractive salivary. As more and more airlines start operations in the private sector, there will be an increase in demand for aircraft maintenance engineers and mechanics.

* 1. **Architecture.**
* A dream of drawing and creating over building sites, making models, designing…. If these are doing the things and getting away with calling it work, **ARCHTECTURE** might just be the profession for you.
* As children some of the first drawings we make are the pictures of homes.
* As adults some of the dreams we nurture most is that of making a home.
* Housing has been and will always remain one of the most significant aspect of our lives.
* With this comes the importance of people that gives shape to these dreams--**Architects**
* An Architect mainly deals with the planning, design and oversight of a building and the site surrounding it.
* They are well equipped with information on all building regulations, design aspect and other technicalities of making a home.
* Architecture as a profession is an equal blend of creativity and technicality.
* It is important for those who want to pursue architecture to really be sure that they have the aptitude and interest for it.
* Interest in designing and sketching, having passion enough to commit to the task and dreaming are some of the important attributes an aspiring architect must possess.

**The fundamentals**

* 10+2 with Math as one of the subjects.
* An aggregate of 50% marks is a criteria to be able to appear for the aptitude test called the National Aptitude Test in Architecture (NATA).
* This test measures the drawing and observation skills, sense of proportion, aesthetic sensitivity, critical thinking ability of the applicant that have been acquired over a long period of time and that are related to the field of architecture.
* Based on the scores, a National Council helps placed students in their preferred colleges
* The 5 year Bachelor degree is divided into 10 semesters that cover all the technical aspects of building design and construction.
* Aside of this, students also get to choose subject aspect of building such as interiors, project management, architectural journalism, Landscape etc as an elective.
* The final year of the course (9th and 10th semesters) is dedicated to the student’s final thesis paper and practical training under a practicing architect.

**Career prospect**

* The successful completion of this degree enables a student to get registered as an architect under the Council of Architect (CoA).
* Anny architect registered under the CoA is eligible to start practice either individually or by joining an already existing firm.
* There are also private-run institutions that offer diploma courses in architecture. However one has to be aware that only candidates passing out of institutes and colleges recognized by the CoA are eligible for registration as an architect.
* There are myriad of options to choose from at the Master’s level.
* The common ones are urban design, landscape architecture and interior design.
* There are less conventional subjects too which many students choose from such as;

Product design, Photography, architectural journalism, design management, design for retail experience, etc.

* It is said that “Architecture of any place is reflection of its people, culture and progress.

**College offering B.Arch.**

* School of planning and Architecture, JNTU, Masab Tank.
* Church of South India Institute of Technology (CSIIT), Secundrabad
* SVCA, Madha pur, Hyderabad.
* **School of Planning and Architecture, Delhi.**
* RV College, Bagalore.
* Sir JJ College, Mumbai.
* Amati University, Chattes Garh, Raipur.
* IIT Kharakpur, Tiruchirappalli, Nagpur, Ranchi, Roorkee, Rourkela,
* Malviya National Institute of Technology, Jaipur
* Indian Institute of Engineering Science and Technology, Howrah
* Maulana Azad Institute of Technology, Bhopal
* And many more
* Hmr Institute of Technology & Management, Delhi (private)
* MBS School of Planning & Architecture, Delhi (Private)
* Vastu Kala Academy College of Architecture and interior Design, Delhi (private)
* School of Planning & Architecture, Delhi (Public College
* University School of Architecture and planning, New Delhi (Private)

**B. Arch admission process**

* In order to seek admission in B. Arch course, a candidate is required to appear for the NATA exam (National Aptitude test for Architecture) which is conducted by the Council of Architecture (CoA) to screen the candidates for selection.he
* Once the NATA score is out, states conduct a counseling process where on the basis of candidate’s rank, he/she is allotted a seat in any of top architecture colleges in India.
* Different States and Colleges may also follow a separate admission process.

**Architecture of any place is a reflection of its people, culture and progress. Today, as we progress into a time of real estate and construction boom, increasing number of people are being able to afford homes. Architects can be assured to have their hands and pockets full for a long time to come.**

* 1. **Advanced Engineering**
  2. **Airspace Engineering (2)**
  3. **Automobiles (6)**
  4. **Artificial Intelligence (4)**
  5. **Bio-technology Engineering (8)**
  6. **Bio-medical Engineering (7)**
  7. **Ceramic Engineering (9)**
  8. **Chemical Engineering (10)**
  9. **Civil Engineering (11)**
  10. **Cloud Computing (Electronics & communication with specialization in**

**Cloud computing & virtualization Technology )**

* 1. **Communication Engineering,**
  2. **Computer Applications. (33)**
  3. **Computer Science Engineering (12)**
  4. **Cyber Security (35)**
  5. **Electrical Engineering**
  6. **Electrical & electronics Engineering (13)**
  7. **Electronics**
  8. **Electronics & Communication Engineering (14)**
  9. **Fashion Technology (B.Tech.)**
  10. **Geo-informatics,**
  11. **Geo-science,**
  12. **Industrial Engineering (15)**
  13. **Information, communication and Entertainment (16)**
  14. **Instrumentation Engineering (17)**
  15. **Manufacturing Science & Engineering (18)**
  16. **Marine Engineering (19)**
  17. **Material Science and Engineering**
  18. **Mechanical Engineering (20)**
  19. **Mecha-tronics,**
  20. **Medical Electronics Engineering (21)**
  21. **Merchant Navy**
  22. **Mining Engineering (24)**
  23. **Naval Architecture Engineering (25)**
  24. **Nuclear Science and Technology (Nuclear Engineering)**

**Introduction**

* Nuclear science and Technology is the cutting edge technology in the world today.
* The importance of nuclear power and its immense potential has long been recognized, but, the technology was still in an infant state.
* As the energy crisis in the world intensifies, the price of fuel is going up.
* In this situation, nuclear energy presents the most viable long term method of dealing with the energy crisis.
* More and more nuclear power plants have been set up all over the country and many more have been planned to satisfy the rising demand for electricity
* In this situation, there exists a good scope of career and advancement for the young and dynamic scientists in nuclear Science and Technology.

**Courses recognized under nuclear Science and technology**

1. B.Sc. Nuclear medicine Technology
2. Diploma in radiation Medicine
3. M.Tech. Nuclear Medicine
4. MD in Nuclear Medicine
5. PG in Nuclear Engineering
6. PG in Nuclear Science and Technology
7. PhD in Nuclear Medicine
8. Ph.D. in Theoretical Nuclear Physics

**Job Opportunities**

* Job in Nuclear Power Plant in various capacities depending on your specialization. Jobs may be; a Project Engineer, Chemical Engineer, Design Engineer, Control and Instrumental Engineer and Nuclear, Mechanical or Structural Engineer.
* Physicist either in Nuclear Plants or in Nuclear Research facilities.
* Nuclear Weapon Engineer, after higher specialization.
* As Manager of Nuclear waste material
* Academic career in Nuclear Science Technology and research

**Eligibility:**

* 10+2 PCM
* Sit for the entrance examinations conducted by various Public and Private Institutes

**Duration the of course:** 4 years

**Institutes/colleges/institutes**

1. Koneru lakshmaiya University, Guntur.
2. S.R.M. University, Kanchipuram
3. Manipal Institute of Technology, Karnataka.
4. School of Nuclear aaaaenergy, Pandit Deen Dayal Petroleum University, Gandhi Nagar.
5. Amity School of Nuclear Science and Technology.
6. Jawaharlal Nehru Technological University, Kakinada.
   1. **Oceanography**
   2. **Oil & Gas.**
   3. **Petroleum Engineer**

**Introduction**

Petroleum Engineering is a discipline concerned with the surface activities related to the production of hydrocarbons—which can be either crude oilor natural gas.

These are the activities within the upstream sector of the oil and gas industry that includes exploration for hydrocarbons.

Petroleum Engineering is broadly consists of different areas such as drilling, reservoir and production stream.

Drilling deals with designing and implementing procedures to drill wells as safely and economically as possible, and depending on its purpose. It may be used for analyzing hydrocarbon pools (major fossils such as coal, petroleum and natural gas are hydrocarbons).

Reservoir Engineering deals with study of such pools and work out on ways to utilize it.

Production Engineering comes into play after the reservoir has been understood and wells have been drilled and hydrocarbon begins to flow.

An important challenge facing the profession is high risk in investment under high degree of uncertainty in oil and gas reservoirs.

Qualification: PCM in class 11th and 12th.

Test: All India Entrance test such as JEE

After graduation: M. Tech and later Ph.D

**Institutes and URLS:**

* Indian School of Mines
* Pandit Deendayal Petroleum University, Gandhi Nagar ([www.pdpu.ac.in](http://www.pdpu.ac.in))
* Maharashtra Institute of Technology, Pune ([www.mitpune.com](http://www.mitpune.com))
* University of Petroleum and Energy Studies, Dehradun ([www.upes.ac.in](http://www.upes.ac.in))
* Rajiv Gandhi Institute of Petroleum Technology, Rae Bareli ([www.rgipt.in](http://www.rgipt.in))
* CSIR-Indian Institute of Petroleum, Dehradun ([www.iip.res.in](http://www.iip.res.in))
* Dibrugarh University, Assam ([www.dibru.ac.in/page.php?cat=Deparment](http://www.dibru.ac.in/page.php?cat=Deparment) &id=Petrolem%20Technology)

**Pros and cons:**

* The job is challenging
* Long working hours of shore: 7A.M. to 8.30 P.M.
* Exposure to best-in-class technology
* High Salary (1.5 times more than that his counterparts in other core sectors. Those with added skills 2-3 times as much their professional growth is very fast)
* Wide spectrum of activities.
* Work in remote locations
* Jobs are concentrated in certain parts of the world.
* Physically strenuous.

Skill/traits

* Job related to data processing and interpretations are done with the help of state-of-the-art software running on sophisticated hardware.
* Hence one is required to be technologically savvy.
* Drilling involves dealing with subsurface conditions of pressure and temperature and requires high skill with machinery and related judgment.

**To be a successful petroleum engineer, one should have knowledge of geology, geophysics, reservoir engineering and management, and be ready to work in synergy.**

* 1. **Polymer Engineering (27)**
  2. **Robotics (28)**
  3. **Space Science.**
  4. **Techno-legal etc.**
  5. **Textile Engineering (29)**

**Medical Science & Dentistry**

* 1. **MBBS, (M. D/M.S. in all branches)**
  2. **BUMS.(53)**
  3. **BAMS (47)**
  4. **BHMS (49)**
  5. **Siddha (52)**
  6. **BDS (48)**
  7. **Pharmacy (51)**

**Professional/Vocational Courses**

**(Common for all streams)**

* 1. **Advertising, communications & events (68)**
  2. **Administration.**
  3. **Air-hostess (for girls).**
  4. **Animation (79)**
  5. **Art Direction (72)**
  6. **B.A. in Script Writing**
  7. **Banking Management (86)**
  8. **Bachelor in Journalism (B.J--3 years)**

**Introduction**

It is an undergraduate Mass Communication course. Journalism is concerned with collection and dissemination of news through the print media and electronic media. The candidate is required highly developed skills in language, a good knowledge about media, an interest in current affairs and a broad general knowledge. Students can incorporate specialization in the areas of television, journalism, health reporting, IT reporting, business and finance reporting, crime reporting, sports reporting or foreign correspondant.

**Eligibility**

10+2 in any stream

**Course**

BA Journalism

**Institutions/colleges/universities**

Makhanlal Chaturvedi National University of Journalism, Bhopal

* 1. **Bachelor of Business Administration (BBA) (87)**

**Introduction**

* One of the most popular bachelor degree program after class 12th. BBA course is the gateway to numerous job opportunities in a number of sectors like marketing, education, finance. Sales and government to name a few.
* The course offers knowledge and training in management and leadership skills, to prepare them for managerial roles and entrepreneurship. During the tenure of the course, candidates learn various aspects of business administration and management through classroom lectures and practical projects internship.
* BBA can be pursued in full time as well as correspondence mode. There are various specializations one can choose from like Human Resource Management, Finance, Sales and Marketing and Information Technology.

**Eligibility**

10+2 in any stream

**Entrance exam**

Generally admission is granted on the basis of an entrance test conducted by the Institute/college. Few institutes conduct group Discussion and personal interview rounds followed by entrance test. Final admission is granted to candidates on the basis of scores obtained in the qualifying examination test, and GD-PI. Some of the popular BBA entrance examinations are listed as under;

NPTA, IMPT, FEAT, UGAT, AUMAT, BHU UET

**BBA Specialization**

Some of the most popular BBA specializations are listed below

* BBA Finance
* BBA Human Resource
* BBA Foreign Trade
* BBA in Banking and Insurance
* BBA Marketing
* BBA Hospitality and Hotel Management
* BBA Information Technology
* BBA Communication and Media Management
* BBA Hospital and Healthcare Management

**Jobs after BBA**

* Human Resource Executive
* Marketing Executive
* Marketing Manager
* Sales Executive
* Research &Development (R&D) Executive
  1. **BBA. Actuarial Sciences (85)**
  2. **BBA in Banking and Insurance**
  3. **BBA Communication and Media Management**
  4. **BBA Event Management**
  5. **BBA Finance**
  6. **BBA Foreign Trade**
  7. **BBA Hospital and Healthcare Management**
  8. **BBA Hospitality and Hotel Management**
  9. **BBA Human Resource**
  10. **BBA Information Technology**
  11. **BBA Marketing**
  12. **BBA Media and Communication**
  13. **BA (Hons) Mass Media in Hindi**
  14. **BBA Media Management**

**Other Options Common for all**

* 1. **Bachelor of Business Management (88)**
  2. **Bachelor of design (accessory)**
  3. **Bachelor of design (leather)**
  4. **Bachelor of interior designing**
  5. **Bachelor of Management Studies (BMS)**
  6. **Bachelor of Mass Media (BMM)**
  7. **Bachelor of Product Design**
  8. **Bachelor of Textile Design**
  9. **Bachelor of Interior Designing**
  10. **Bachelor of Mass Communication (BMC)**
  11. **Bachelor of Mass Media (BMM)**
  12. **Call Centre- training.**
  13. **Communication Design (81)**
  14. **Communication & events**
  15. **Communication and Media-studies**
  16. **Corporate Intelligence (101)**
  17. **Curator (57)**
  18. **Design (82)**
  19. **Diploma in Digital Management.**
  20. **Diploma in Elementary Education**
  21. **Drama Production (75)**
  22. **Drawing and Painting**
  23. **English literature.**
  24. **Event Management (92)**
  25. **Finance**
  26. **Financial Market Management**
  27. **Film Choreography (73)**
  28. **Film Cinematography (80)**
  29. **Film Direction (74)**
  30. **Film-making.**
  31. **Finance and Financial Management**
  32. **Financial Market Management**
  33. **Fine Arts**
  34. **Fire Safety Management (100% Job oriented Program--9871549659)**
  35. **Furniture and interior design course**
  36. **Flight/ aviation/ Pilot.**
  37. **Food science and Nutrition (103)**
  38. **Foreign language. (104)**
  39. **Graphic Designing (83)**
  40. **Hair and Beauty-training Academies.**
  41. **Healthcare & Gym (UG & PG)**
  42. **Hospital Management (93)**
  43. **Human Resource Development**
  44. **Insurance. (opportunities in this sector) (96)**
  45. **Interior Designing (106)**
  46. **Investment and Mutual Fund**
  47. **Jewellry Design Course**
  48. **Liberal Studies (107)**
  49. **Library Science (108)**
  50. **Logistics and Supply-chain Management (97)**
  51. **Management (98)**
  52. **Mass-communication.**
  53. **Marketing, international marketing**
  54. **Media, advertising.**
  55. **Media & Communication Studies**

**Media & Event Management Courses**

* 1. **Bachelor of Multimedia Communication**
  2. **BA Media Technologies**
  3. **B.Sc. Visual Media**
  4. **Multimedia and Web technology**
  5. **NGO management.**
  6. **NTTE**
  7. **Performing Arts (77)**
  8. **Philosophy**
  9. **Physical Education (BA & B.Sc.) (111)**
  10. **Photography (84)**
  11. **Placement Training Program**
  12. **Printing and Packaging.**
  13. **Bachelor in Journalism (B.J)\_\_3 years**
  14. **Bachelor in journalism and Mass Communication—3years**
  15. **B.A. with Mass Media—3 years**
  16. **B.A. in Script Writing**
  17. **Private sector and Industry.**
  18. **Real Estate Training**
  19. **Religion**
  20. **Students’ Welfare (JMI) (Graduation & Post graduation)**
  21. **Transportation and Mining-studies**
  22. **Private sector and Industry.**
  23. **Public Relations (71)**
  24. **Real Estate.**
  25. **Retailing,**
  26. **Social Worker**
  27. **Sports & Sports Management (112)**
  28. **Students’ welfare (Graduation and Post-graduation) Jamia Millia Islamia.**
  29. **Technical Education.**
  30. **Theatre.**
  31. **Tourism Industry.**
  32. **Transportation and Mining-studies I.T.**
  33. **Vocal and Instrumental Music (78)**

**Hotel Management & Food Services**

* 1. **Bachelor in Hotel Management (NIMS, Jaipur)**
  2. **Bachelor of Hospitality Management**
  3. **B.E. Food Technology and bio-chemical Engineering**
  4. **B.E. Food Technology**
  5. **B.Sc. Food Science**
  6. **B.Sc. Food Science and quality control**
  7. **B.Sc. Food Technology**
  8. **B.Sc. Microbial and Food Technology**
  9. **B.Sc. Nutrition, Food Service Management and Dietetics**
  10. **B.Tech. Food Science**
  11. **B.Tech Food Technology**
  12. **Hotel management and food services**

**Post graduation courses in Food Technology**

* 1. **M.A. Food Nutrition**
  2. **M.E. Food Technology**
  3. **M.E. Processing and Food Engineering**
  4. **M.Sc. Food Science and Technology**
  5. **M.Sc. Food technology**
  6. **M.Sc. Microbial and Food Technology**
  7. **M.Tech. Food and Nutrition**
  8. **M.Tech. Food Biotechnology**
  9. **M.Tech. Food Chain Management**
  10. **M.Tech. Food Engineering and Technology-integrated**
  11. **M.Tech. Food Engineering and Technology**
  12. **M.Tech. Food Processing Technology (integrated)**
  13. **M.Tech. Food safety and Standards.**
  14. **M.Tech. Food Technology**
  15. **MBA Course in Food technology**

**Research Courses in Food Technology**

* 1. **Ph.D. Food and Dairy Technology**
  2. **Ph.D. Food Biotechnology**
  3. **Ph.D. Food Engineering and Technology**
  4. **Ph.D. Food science and Technology**
  5. **Ph.D. Food Technology**
  6. **PG in Geo-informatics**
  7. **PG Diploma in Food Analysis and Quality Control**
  8. **Ph.D. in Hotel Management (NIMS, Jaipur)**

**Tourism and Travel**

* 1. **Indian Institute of Tourism Travel Management (IITTM): Gwalior**
  2. **Tourism and International Business**
  3. **Tourism and Leisure services: *NOIDA*.**
  4. **Tourism Industry**
  5. **Tourism & Travel (113)**

**PG Courses Humanities**

* 1. **Avenues of Study of History at PG**
  2. **Master of Computer Applications, MCA, (Delhi University);**
  3. **M.A. Animation,**
  4. **M.A. Business Economics,**
  5. **MA Communication**
  6. **M.A. Development Economics.**
  7. **M.A. Econometrics**
  8. **M.A. Mathematical Economics**
  9. **M.A. Media studies and Production**
  10. **M.A. Rural Economics,**
  11. **M.S. Quantitative Economics**

**PG Courses Commerce**

* 1. **Cost and Management Accountant (CMA)**
  2. **Certified Financial Planner – CFP**
  3. **Chartered Financial Analyst (91)**
  4. **Law graduate and post graduates (LLB & LLM)**
  5. **LLB**
  6. **Copy right law**
  7. **Corporate law**
  8. **Criminal law**
  9. **LLM**
  10. **M. Com**

**PG courses in Medical Science**

* 1. **M.Sc. Bio-technology.**
  2. **M.Sc. Computer Science (Delhi University);**
  3. **M.Sc. Geo-science,**
  4. **M.Sc. Green technology.**
  5. **M.Sc. Medical Anatomy**
  6. **M.Sc. Medical Biochemistry**
  7. **M.Sc. Medical Pharmacology**
  8. **M.Sc. Medical Physiology**
  9. **M.Sc. Medical Microbiology.**
  10. **MD Anesthesiology**
  11. **MD Biochemistry**
  12. **MD Community Medicine**
  13. **MD Anatomy**
  14. **MD Dermatology, venerology and Leprosy**
  15. **MD Forensic Science**
  16. **MD General Medicine**
  17. **MD Microbiology**
  18. **MD Pediatrics**
  19. **MD Pathology**
  20. **MD Pharmacology**
  21. **MD Psychiatry**
  22. **MD Physiology**
  23. **MD Radio-diagnosis**
  24. **MD Respiratory Medicine**
  25. **MD Radiology**
  26. **Master of Public Health**
  27. **Master of Social Works**
  28. **MS Obstetrics & Gynecology**
  29. **MS Ophthalmology**
  30. **MS Otto-Rhino-Laryngology**
  31. **MS Orthopedics**
  32. **MS General Surgery**
  33. **MS Medical-anatomy**
  34. **Ultra Sonography- 4D**

**(Institute of Public health & hygiene, 011-26782850)**

**Faculty of Physiotherapy**

* 1. **Master of cardiopulmonary**
  2. **Master of Neurology**
  3. **Master of Orthopedics**
  4. **Master of Sports**
  5. **Master of Community Rehabilitation**
  6. **Master of Gynecology & Obstratics**

**Faculty of Nursing**

* 1. **M.Sc. (Child-health--Pediatrics Nursing)**
  2. **M.Sc. (Obstetrics’ & Gynecology)**
  3. **M.Sc. (Psychiatric—Mental Health)**
  4. **M.Sc. (Medical—Surgical Nursing)**
  5. **M.Sc. (Community Health Nursing)**

**Health and Allied Sciences**

* 1. **Master of Optometry**
  2. **Master of Pharmacy**
  3. **M.Sc. Radio-imaging Technology**
  4. **M.Sc. Operation Theatre Technology**
  5. **M.Sc. Medical Lab technology**
  6. **M.Sc. Micro-biology**
  7. **M.Sc. Nutrition & Dietetics**
  8. **PG Diploma in MRI**
  9. **PG Diploma Ct Scan**

**M.Tech.**

* 1. **M.Tech. Nuclear Engineering**
  2. **M.Tech. Aerospace**
  3. **M.Tech. Oil and Gas, Energy & Power—2years, NIMS University, jaipur.**
  4. **M.Tech. Civil Engineering**
  5. **M.Tech. Computer Science & Engineering**
  6. **M.Tech. Electronics & communication Engineering**
  7. **M.Tech. Mechanical Engineering**
  8. **Master of Computer Application (MCA)**
  9. **Current research scope in science**

**Advanced Engineering**

* 1. **PhD. Computer Engineering**
  2. **PhD. Computer Science & Engineering**
  3. **PhD. Electronics & communication Engineering**
  4. **PhD. Management and Administration**
  5. **PhD. Mechanical Engineering Ph.D. in Dental Science**
  6. **Ph.D. sports**

**Advanced Medicines**

* 1. **Ph.D. Cardiology**
  2. **Ph.D. Nutrition & Dietetics**
  3. **Ph.D. Neurology**
  4. **Ph. D. Nursing**
  5. **Conservative dentistry**
  6. **Oral & Maxillofacial Surgery**
  7. **Oral Medicine & Radiology**
  8. **Oral Pathology and Microbiology**
  9. **Prosthodenties and crown and bridge,**
  10. **Periodontolology,**
  11. **Orthodontics and Danto Facial Orthopedics**
  12. **Public health and dentistry,**
  13. **Paedodentics and preventive dentistry,**

**Business Administration**

* 1. **MBA (and advance study)**
  2. **MBA Health Care Services**
  3. **MBA (Supply chain and logistics)**
  4. **MBA Hospital Administration**
  5. **MBA Economic Legislation**
  6. **MBA Event Management**
  7. **Management Studies**
  8. **Managerial Economics**
  9. **Quantitative Technique I & II**
  10. **Master ob Business Economics**
  11. **M.phil (Management/Administration)**

**Education**

* 1. **Teachers’ training (B. Ed; M. Ed; M.A. and research in Education)**
  2. **Diploma in Elementary Education (100)**
  3. **Education management.**
  4. **Sports and Sport education**

**(D.P. Ed, B.P.Ed, M.P.Ed, *Delhi, Lucknow* )**

* 1. **DIET**
  2. **Educational/vocational School Counselor**
  3. **Montessori Teaching (109)**
  4. **Technical Education**

**Integrated Courses**

* 1. **B. Pharma+ MBA (Dual Degree—NIMS University)**
  2. **BCA+MCA—5 years..**
  3. **B. Tech+ MBA ……….. 5 years**
  4. **B.Sc+ Agriculture + Food- business ……. 5 years**
  5. **BBA+MBA (Integrated)**

**Job Opportunities after UG & PG**

* 1. **Civil Services, IAS, IPS, IRS, IRS, etc--Conducted by (UPSC)**
  2. **Army**
  3. **Navy**
  4. **Air Force**
  5. **Coast Guard**
  6. **Detective (102)**
  7. **Flight Attendants (Cabin crew)**
  8. **Police.**
  9. **Pilot**
  10. **Current trends in the insurance Sector**
  11. **Stock brokers (Master of trade)**
  12. **Cluster Innovation Centre (CIC)** [**www.cic.du.ac.in**](http://www.cic.du.ac.in) **or** [**www.du.ac.in**](http://www.du.ac.in)
  13. **What is Dairy Management?**
  14. **Agri-Force**
  15. **Earth Scope**
  16. **Off-beat careers**
  17. **Cartoonist**
  18. **Calligrapher:**
  19. **System Analyst**
  20. **Food blogging**
  21. **Jewelry designer**
  22. **Fitness experts/personal trainer**
  23. **Travel planners.**
  24. **Skin-care specialist: A Cosmetology Education**
  25. **Athlete trainer**

**Jobs after BBA**

* 1. **Human Resource Executive**
  2. **Marketing Executive**
  3. **Marketing Manager**

**Entrance test, CAT, CMAT, XAT, GMAT, ATM or IITTM**

**Top 10 Business Schools/Institution in India**

1. IIT------------Amedabad
2. IIT-----------Kolkatta
3. IIT------------angalore
4. Xavier labour Relations Institute--------Jamshedpur
5. Indian Institute of management----------Lucknow
6. IIM-----Kozhikode
7. Management Development Institute------Gurgaon
8. Faculty of Management Studies-------University of Delhi, Delhi
9. Amity Business School, Noida
10. Pri. LN Welingkar Institute of Management Development and Research, Mumbai

Rank--12. Jumnalal Bajaj Institute of Management studies, Mumbai (Rank-12)

Rank--13. Indian Institute of Foreign Trade, Delhi (Rank-13)

Rank--18. International Management Institute, Delhi (Rank-18)

Rank--19. Institute of management Technology, Ghaziabad (19)

Rank--28. Institute of Management Studies, Ghaziabad (28)

Rank--32. Delhi School of Management, Delhi Technological University (32)

Rank--35. FORE School of Management, Delhi (35)

Rank--37. Department of Management Studies, IIT (37)

Rank--48. Lal Bahadur Shastri Institute of Management, Delhi (48)

Rank--49. Faculty of Management Studs, Manv Rchna Intitutional Univrsty, Faridabad

Rank--50. Jagan Institute of Management Studies (JIMS), Rohni, Delhi (50)

**B.Tech Colleges in Delhi**

* IIT Delhi
* Netaji Subhash institute of Technology, New Delhi.
* BE in Computer Engineering……………….. 1.41 lakh/annum
* BE in Information Technology ……………....do…..………... .
* BE in Electronics & communication Eng………...do………....
* BE in Bio-technology…………………………..….do…….......
* BE in Instrumentation and Control Eng…..do…………………
* BE in Manufacturing Process & Automation Eng….do…..…..
* BE in Mechanical Eng……………………………..do…...…..
* National Institute of Technology
* Ambedkar Institute of Advanced Communication Technologies & Research
* B. Tech in Computer Science
* B. Tech in Electronics & communication Eng
* B. Tech in Computer Science & Eng (lateral entry)
* B. tech in Electronics &Communication Eng (lateral entry)
* Bhagwan Parshuram Institute of Technology, New Delhi

(affiliated to Guru Gobind Singh Indraprastha University)

* B.Tech Computer Science &Engineering, 120 seats
* BT in Elec. & Commu. Eng. 120 seats
* BT in Elect. & Electronics Eng 60 seats
* BT in IT, 60 seats
* Northern India Engineering College, ND.

(affiliated to Guru Gobind Singh Indraprastha University)

* BT in Civil Engg, 120 seats, 44,000/annum
* BT in Mech & Auto Engg (2nd shift also) seats 180, Rs.44,000/annum
* BT in Com Science & Engg seats 120, Rs. 44,000/annum
* BT in Electronics & Communication Enngg. Seats 180, Rs.1.02/annum.
* BT in Ele & Electronics Engg seats 120, Rs44,000/annum
* BT in IT seats 120, Rs.44,000/annum
* BT in Electronics & Communication (2nd shift), seats 60, Rs. 44,000/annum
* Bt in Ele & Electronics (2nd shift) seats 60 Rs.44,000
* BT in Mech Engg, seats 60 , Rs 44,000/annum
* And many more
* Jamia Hamdard, ND
* BT in Food Tech seats 30, Rs. 37,000/annum
* BTin Comp SC & Engg Rs. 37,000/annum
* BT in Electronics & Communication
* Inderprastha Institute of Information & Technology, ND (11 courses)

(affiliated to Guru Gobind Singh Indraprastha University)

* BT in Comp Sc. & Engg seats 110, Rs.1.17,000/annum
* BT in Elecs & communication seats 80, Rs.1.17,000/annum
* 9 more.
* Ch. Brahmprakash Government Engg.College (6 courses of 4 years each are offered)
* BT in Civil (lateral entry also)
* BT in Environmental Engg.(lateral Entry also)
* BT in IT (lateral entry also)
* Delhi Institute of Tool Engg.(DITE)

(affiliated to Guru Gobind Singh Indraprastha University)—5 courses offered

* BT in Mechatronics. Rs. 60,000/annum
* BT in Tool Engg. Rs.60,000/annum
* And others
* JMI. Jamia Nagar
* Centre for Civil Aviation Training (CCAT), ND

(Approved by DGCA)

* BT in Aircraft Maintenance Engg Rs. 85,000/annum
* BT in Aeronautical Engg Rs.79,000/annum
* BT in Aircraft Maintenance Engg. Rs.85,000/annum

**Foreign destinations**

CAT

(Aspirants should make planned efforts to maximize their chances of success)

On line course for free

* [www.courser,org](http://www.courser,org)
* [www.udacity.com](http://www.udacity.com)
* [www.edx.org](http://www.edx.org)
* [www.ietsintern.com](http://www.ietsintern.com) (intern in the field of your choice)
* [www.hellointern.com](http://www.hellointern.com) (intern in the field of your choice)

Gap year

CMAT: The second most important after CAT

Exams required to study in US

SAT

TOEFL

GMAT

GRE

AP

Curricular Practical Training (CPT)

Optional Practical Training (OPT)

Curricular Practical Training (CPT)

Optional Practical Training (OPT)