





Velammal Employment Training & Research for Youngsters





CLUSTER-1

ENGINEERING AND ALLIED COURSES

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





Career & Course Options after 10TH & Plus 2 CAREERS IN ENGINEERING

- AVIATION
- SHIPPING INDUSTRY
- MERCHANT NAVY
- ARCHITECTURE
- ENGINEERING & TECHNOLOGY
- AGRICULTURAL
- MINING
- PETROLEUM

- PLASTIC, POLYMER, RUBBER, MOULD
- TOOL & DIE
- CERAMIC
- TEXTILE
- PACKAGING
- LEATHER
- RAILWAY
- TECHNICIANS



VELAMMAL

VETRY



Introduction

- An ideal cabin attendant is sociable with a naturally warm and pleasant personality and someone who can meet passengers' needs through sincere yet professional service.
- Two distinct sectors: Commercial and Military sectors are present. Regulations for the commercial aviation industry is determined by the apex body, Directory General of Civil Aviation in India (DGCA).

Working Conditions

• Pilots spend long hours on flight decks in a seated position. Pilots involve great responsibility both for the safety of the aircraft and safety of the passengers and crew.





Personality

- Agility, stamina and good health are vital to attend to the stressful duties for long hours. Requires presence of mind, courage, physical fitness, determination, due to the risks which flying involves. They need to be self-confident and at east working with other people.
- Air hostesses must have a need appearance. They require a polite, pleasant and tactful manner with the ability to put people at east also described as 'service aptitude'.
- Aircraft engineers must be able to work in all types of weather conditions. Ability to work as a team is needed.





Work Options

- Air Hostess
- Meteorologist (Interprets Weather Data)
- Commercial \rightarrow Airlines, Air services, Air Taxi
- Military \rightarrow Air Force
- Pilots, Flight Attendants, Flight Despatchers, Flight Schedulers, Ground Crew, Flight Engineer
- Engineers & Technical Division
- Marketing \rightarrow Advertisements
- Finance
- Fashion Designers \rightarrow Crew dress designers
- Security/Safety Department
- Air Flow Control
- Ticketing/Commercial





Work Options

- Communication Officers
- Aerodrome Officers
- Airworthiness Officers
- Airport Mangers & Administrative Managers

Courses

- Student Pilot License
 - Only Oral Exam
 - 10th Standard & 16 Years Age
- Private Pilot License
 - Initial Flying Training
 - Theory Exam
 - 60 Hours Flying





AVIATION - 5

Courses, Institutes

- Commercial Pilot License
 - 250 Hours Flying
 - +2 with Maths & Physics
- Commercial Helicopter Pilots License
 - 40 Hours Flying
- Aircraft Mechanics
 - B.Sc + 2 Years Practical Experience
 - +2 with Diploma in Aircraft Maintenance Engg
- Air Traffic Controller
 - Engineering degree in Electronic/Radio/Telecom
- Indira Gandhi Rashtriya Uran Academy (IGRUA)
 - B.Sc (Aviation)
- MIT, Madras
 - B.Tech from B.Sc or M.Tech





SHIPPING INDUSTRY - 1

Introduction

- Shipping can be categorized into three work segments:
- 1. The first area has shipping companies, which have an administrative set up manned with personnel who take care of the logistics, and the general documentation required by the industry.
- 2. There are vessels which move passengers and cargo and have on board the ships crew who are responsible for its running on the scheduled routes and for overseeing and liasoning the loading and offloading operations while the ship is docked.
- 3. The third area of work is at the docks and ports where the ships are loaded and unloaded and all documentations and other formalities are completed.

Personality

• Working on docks and ports is not quite an easy task. Need to work in open most of the time. Noisy and dusty environment.





Career & Course Options after 10TH & Plus 2 SHIPPING INDUSTRY - 2

Courses & Work Area

- Traffic Clerks
- Stevedores & Superintendents
 - Loading and Unloading
 - Physical Labour
- Dip in Shipping Management

Institutes

- Alagappa University
 - MBA in Shipping





Career & Course Options after 10TH & Plus 2 MERCHANT NAVY - 1

Introduction

 Merchant Marine vessels can be categorized into the Deck, Engine and the Steward departments each over seen by officers. The main officers on the ship are Executives or Navigators or Engineers.

Working Conditions

• Based on the type of ships, we need to adapt to our work. Old ships are not of excellent shape.

Personality

• The jobs call for genuine interest that can help the entrant adjust with ease and confidence. The ability to withstand long stretches of hard work in an emergency situation on board a vessel and to bear the physical strain, needs a person with tough mental and physical self to sustain through such stress.

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MERCHANT NAVY - 2

Courses & Work Area

- Chief Engineer \rightarrow Propulsion
- Second Engineering Officer \rightarrow Engine Room
- 3^{rd} , 4^{th} & 5^{th} Officer \rightarrow Fuel & Water
- Electrical Officer
- Radio Officers → Electronics In-charge

Institutes

- Using IIT-JEE
 - Chanakya \rightarrow 3 year in Nautical Sciences
 - Marine Engg Research Institute (Calcutta/Mumbai)







MERCHANT NAVY

- Courses : Certificate / Diploma courses in Marine Radio Officer.
 Deck Rating, Engine Rating.
 Merchant Navy Cadets, etc..
- Eligibility : Pass in +2. Age (18-24 years)
- Duration : 6 months / 1 year / 2 year
- Cost : not available
- Scope : Jobs in shipping Companies,
 Private Sector & Government Sector.





ARCHITECTURE & CONSTRUCTION INDUSTRY - 1

Introduction

• Specific area of study and work which deals with design, plan of buildings and structures. Architects belong to a profession where dreams and sweat are blended with material to erect milestones of human civilization and prosperity.

Working Conditions

• They mostly work at their offices but occasionally go for site review.

Personality

• Keen intelligence and many of the aptitudes and interests found in businessman, creative artists and scientists should be present in an aspirant for this field.





ARCHITECTURE - 2

Introduction

- Landscape architects have to coordinate their work with engineers, architects, city officials, zonal experts real estate agents and horticulturists to develop a complete understanding of the job.
- Naval architects are trained to design, plan, construct and maintain all structures made and used on the seas. At the coast, ports, dockyards, oil platforms and loading mechanism etc. have to be constructed.

Personality

• An aptitude for problem solving, interest in structures and out of doors work, a tough physique, ability to visualise multidimensional structures, spatial relationships, love for mathematical and scientific problem solving and an avid curiosity and keen observation are basis traits of civil engineers.

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Career & Course Options after 10TH & Plus 2 ARCHITECTURE - 3

Courses & Work Area

- Ability to sketch, flexibility, patience, hard work, creative
- Design in Architecture and physical planning
- B.Arch \rightarrow 5 Years
 - Landscape Architecture
 - Naval Architecture
 - Civil Engg
 - Surveyors/Site Engineers





Career & Course Options after 10TH & Plus 2 ENGINEERING & TECHNOLOGY - 1

Introduction

 Engineers apply the theories and principles of science – physics, chemistry and mathematics for finding economical solutions to technical problems. They also have to determine the overall effectiveness, cost, reliability and safety.

Electronic and Telecommunication Engineers

 Electronic engineers have been involved in the invention, design, construction and operation of electronic systems and devices. Telecommunication engineers are involved in the designing, manufacture and operation of telecommunication devices.



VETRY



ENGINEERING & TECHNOLOGY - 2

Working Conditions

• Work environment depends on the industry in which they work. Some engineers might be involved in sales and marketing jobs that involve travelling and dealing with market research personnel, agents and users.

Personality

• Analytical mind, strong problem solving abilities, sound mathematical and scientific foundation and a desire to be in constant pursuit of knowledge is required for success in engineering.





ENGINEERING & TECHNOLOGY - 3

Courses & Work Area

- IIT-JEE & AIEEE
- Technological Institute of Textiles & Science, Bhiwani
- BITS, Pilani (BITSAT)
- National Dairy Research Institute, Karnal
- Manipal Institute of Technology
- Indian Institute of Fire Engg, Nagpur
- Electronic & Telecom Engg
 - Space & Defence
 - Industrial Products
 - Commercial Products
 - Electronic Components

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ENGINEERING & TECHNOLOGY - 4

Courses & Work Area

- Jobs
 - R&D, Production, Servicing, Sales & Marketing, Teaching
- +2 or Diploma
 - B.E/B.Tech \rightarrow M.Tech through GATE
- Electronics & Computer Science, Electronics & Communications, Electronics & Control, Electronics & Instrumentation
- Electronics & Telematics
- Electronics & Electrical Communication
- Electronics & Telecommunication
- Electronics & Power
- Electronics & Information





AGRICULTURAL ENGINEERS - 1

Introduction

- Concerned with application of engineering principles and practices to all areas related to agriculture. It is essentially a hybrid of engineering and agricultural sciences with major engineering characteristics.
- Besides developing new design for equipments and machines used by the agriculture and food industry they coordinate with electronic/electrical engineers for perfecting the technology of the equipments.
- They are required on irrigation projects, for planning agriculture based industries, projects, drainage systems, land reclamation projects, and for flood control and soil erosion projects.





AGRICULTURAL ENGINEERS - 2

Personality

- Must have knowledge of physical science and engineering principles and enough mathematical background to work with these principles. A robust physique, love for mechanical work and a liking for outdoors is required.
- Ability to work as a team.
- Ability to sustain unpleasant work conditions, work in fields which sometimes may be dirty.
- A good health & reasonable physical fitness for carrying out tasks related to business, industry and farming.
- Diplomacy, positive attitude, good vocabulary and ability to handle science.

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VETRY



AGRICULTURAL ENGINEERS - 3

Courses & Work Area

- Apply principles of engineering to agricultural industries, food processing; Interact with agricultural scientists
- B.Tech or M.Tech
- Agricultural engineering. Duration: 4 5 years. Eligibility: Pass in 12th under the 10+2 system or an equivalent exam with Physics, Chemistry, Maths and English.
- **BSc. Agricultural Sciences. Duration : 4years** Eligibility : Pass in 12th under the 10+2 system or an equivalent exam with Physics, Chemistry, Biology and English or Agriculture Group.

Institutes

- National Diary Development Board
- NABARD
- Food Corporation of India





MINING ENGINEERS

Introduction

- Involved in finding the source of valuable mineral deposits located beneath the earth's surface or water and are involved in removing them in the most economical way separating as much as possible of the work less materials from the valuable.
- Whole process involved planning, designing, safety operation, excavation of minerals and their transportation, maintenance of mines, air circulation and removal of toxic gases from the mines.

Working Conditions

 They need to work in small and remote areas. They have to work in difficult conditions when in underground mines and also face danger of the hazards mining poses. Working in artificial light, poor ventilation, in humid atmosphere can be tough.

Personality

• Patience, responsible approach to work, endurance are critical asserts of mining engineers.



VERY



PETROLEUM ENGINEERS

Introduction

• Petroleum engineers apply the principles of geology, physics and engineering sciences for the recovery development and processing of petroleum. Exploration work involves locating oil and gas sources.

Working Conditions

• Work includes design work, cost estimates, scheduling and supervision.

Personality

• They work in oil exploration on the high seas, forests, deserts, plains and mountains. They must have curiosity to understand the complex ways of handling a task, an eye for detail, an ability to take responsibility and work with a team.





ENGINEERS

Courses & Work Area

- Mining & Petroleum Engineers
 - Recovery & Processing of Petroleum
 - Finding Resource of valuable mineral deposits
 - Petroleum: Planning & Exploration, Design, Excavation, Refining, R&D, Environment Protection, Sales
- Geoscience Engineers
 - Formation of oil contents in rocks
 - Petrophysical specialist, Field petroleum engineer, Drilling engineer, production engineer, Reservoir engineer
- ONGC, Coal India Limited
 - B.E/B.Tech (Mining, Metallurgy)





PETROLEUM INDUSTRY

Courses & Work Area

- Oil Exploration & Production
- Refinery & Marketing
- Petro-Chemical & downstream units
- Production, Refining, Transportation, Marketing
- PG Dip/B.Tech
 - Petroleum
 - Industrial Chemistry, Oil Fats & Waxes, Paints & Varnishes





PLASTIC, POLYMER & RUBBER TECH - 1

Introduction

- Plastic industry is the bedrock for modern industrial civilisation. Plastic production process requires plastic/polymer engineers who oversee the production process and develop new products. They develop plastic/polymers to replace the use of glass, wood, metals, to create economical options or to cut on risks eg. Creating fire resistant plastics.
- Rubber technology is about designing new product applications with synthetic rubber e.g new fibre combinations, new adhesives, formulation of rubber and plastic compounds for fabrication of products capable of flexibility, wear, traction.

Working Conditions

• Plastic engineers have varying work locations, along with interactions with customers.





PLASTIC, POLYMER & RUBBER TECH - 2

Personality

- Good mechanical aptitude and scientific acumen are required. Imagination, creativity are required for developing new products and in devising new uses of the basic product.
- Based on the type of ships, we need to adapt to our work. Old ships are not of excellent shape.

Courses & Work Area

- B.E/B.Tech
- PG Dip in Plastic Engineering / Processing & Testing / Mould Design

Institutes

• Central Institute of Plastics Engineering & Technology, Chennai

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PLASTICS & MOULD TECHNOLOGY

- **Course** : Diploma in Plastics Mould Technology.
- Eligibility : 12th Pass. (at least 70%)
- Duration : 3 years
- **Cost** : Rs.7000/- to Rs..10,000 per year.
- Scope : Jobs in Plastic & Mould industry.

Foreign jobs - Singapore, Malaysia Further Education - PG

Institution : Central Institution of Plastics Engineering and Technology, Hebbal, Mysore.





TOOL & DIE MAKING

- Course : Diploma in Tool & Die Making
- Eligibility : 10th Pass / +2. (Good %)
- Duration : 4 years. (8 semesters)
- **Cost** : Rs. 5,000 15,000/ per year.
- Scope : Tool & Die making Industry Jobs.
 Good Jobs India & Abroad. (Malaysia)
 Further studies.
- Colleges : Govt. Tool Room & Training center, (GTTC) Nettur Tech. Training Foundation (NTTF).



VETRY





Career & Course Options after 10TH & Plus 2 CERAMIC TECHNOLOGY - 1

Introduction

- Ceramic engineers and scientists have acquired a better understanding of the uses of clay and other earthen substances. Many industries like brick, cement, tile, pipe depend on ceramic materials.
- Ceramic engineers work with highly advanced materials which have been produced by complex chemical processes while ceramic artists and craftspeople use clay and sand for basic ceramic materials.

Working Conditions

• They are involved in research, design, production and testing. Technologists may work in plants and factories, researchers work in laboratories, research institutes, and universities.





Career & Course Options after 10TH & Plus 2 CERAMIC TECHNOLOGY - 2

Personality

• Logical thinking, analytical outlook, a good understanding of chemistry are only the beginning of a career in ceramics.

Courses & Work Area

- Better understanding of use of clay and other earthen substances
- Research, Design, Production, Sales



TEXTILE TECHNOLOGY - 1

Introduction

 Textile industry has three major categories of workers those who work in R& D, manufacturing, and in merchandising. Textile technology involves processing, texturisation and mechanisation.

Working Conditions & Personality

 The work of engineers and technologists involves handling a succession of highly technical problems in a wide variety of situations. The job requires problem solving, analytical thinking and team work.





TEXTILE TECHNOLOGY - 2

Courses & Work Area

- R&D (Test for durability), Fabric Strength
- Production & Quality Control
- Customer Sales & Service
- Stages
 - Yarn Preparation
 - Yarn Production
 - Weaving or Knitting
 - Dyeing & Finishing
 - Processing the fibre, Texturisation (techniques for dyeing, bleaching), Mechanisation (Develop machines)
- The Synthetic & Art Silk Mills Research Association (SASMIRA)





PACKAGING TECHNOLOGY

Introduction

 Packaging directors or coordinators are increasingly needed in industry.

Personality

 It is highly desirable that the executive in charge of packaging must either know or have access to technical knowledge on the materials and methods for constructing packages.

Courses & Work Area

- Combines Many Skills
- Marketing, Machines, Materials Considered for packaging
- Textiles/Glass/Wooden/Plastic/...

Institutes

• Indian Institute of Packaging Technology





Career & Course Options after 10TH & Plus 2 LEATHER TECHNOLOGY - 1

Introduction

 Leather industry has 2 main areas – the processing of raw leather to finished leather ready for the manufacturing industries and design, production and marketing of finished leather goods. Leather technologists are trained in the treatment of animal skin and are involved in directing and supervising the processing of raw hide.

Working Conditions

 Leather technologists work in tanneries. The work is practical and can be messy particularly at the stage of processing of the hides and skin. If tanneries are not modernised, it might have noxious smell.

Personality

• The work of technologists requires adaptability, problem solving skills, scientific acumen (mainly chemistry) and practical ability in manufacturing industries. Aptitude for managing people is needed. Good communication skills are required for written reports and verbal communication.





LEATHER TECHNOLOGY - 2

Courses & Work Area

- Leather Tanning
 - Processing hides of goats, ...
- Production
- Research & Quality Control
- Marketing & Sales
- Leather Product Manufacturing

Institutes

- Footwear Tech
 - NIFT, New Delhi
 - CLRI, Chennai
 - Footwear Design & Development Institute, Noida
 - Central Footwear Training Institute, Agra





Career & Course Options after 10TH & Plus 2 RAILWAY ENGINEERS

Introduction

 The Indian Railways has a team of Engineering professionals from the core branches of Engineering to manage the planning and expansion work, the production units, maintenance, and engineering services related to the functioning of the railways

Courses & Work Area

- Indian Railway Service of
 - Mechanical Engineers (IRSME)
 - Signal Engineers (IRSSE)
 - Electrical Engineers (IRSEE)
 - Engineers (IRSE)
- Indian Railway Stores Service
- Engineering Services Exam by UPSC

Institutes

- Institute of Permanent Way Engineers
- Institute of Rail Transport





Career & Course Options after 10TH & Plus 2 ENGINEERING TECHNICIANS - 1

Introduction

 Engineering technicians assist engineers and scientists in assembly, repair and experiment oriented tasks. These are highly technical skilled operations involving a basic understanding a theoretical concepts and focus on functional precision and accuracy which the task requires. Engineering technicians study for a diploma.

Working Conditions

 Technicians work on shop floor, in research labs and in clients premises. The task is often strenuous as it requires skill, precision and patience. In chemical factories, the job can be hazardous with toxic fumes while in air-conditioning the task could involve significant amount of outdoor work often in the hot summer.



Career & Course Options after 10TH & Plus 2 ENGINEERING TECHNICIANS - 2

Personality

• Technicians need mathematical and mechanical aptitude. They should be able to interpret abstract concepts, apply scientific principles from the design stage to the manufacturing processes.





Career & Course Options after 10TH & Plus 2 ENGINEERING TECHNICIANS - 3

- Aeronautical Engineering Technician
- Air-Condition & Refrigerator Technician
- Automobile Servicing Technician
- Appliances Servicing Technician
- Chemical Engineering Technician
- Civil Engineering Technician
- Computer/Telecommunication Engineering Technician
- Electronic Engineering Technician
- Mechanical Engineering Technician
- Marine Services Technician
- Plastic Technician





ENGINEERING - 1

- Civil \rightarrow Architecture,
 - Craftsman, Draughtsman, Public health engineers, Highway engineers.
- Mechanical \rightarrow Mining, Automobile, Industrial and production.
- Electrical
- Electronics \rightarrow Telecommunication.
- Chemical \rightarrow Petrochemical.
- Marine \rightarrow Certificate from Mercantile Marine Department
- Agriculture/Soil/Water
- Refrigerator/AC/Tractor/Lathe/Welder
- Timber Engineering
- Metallurgy
- Textile
- Rubber/Glass Technology

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ENGINEERING - 2

Courses & Work Area

- Maritime
 - International Maritime Institute
 - B.Sc (Nautical Science)
 - Lal Bahadar Shastri Nautical & Engg College, Mumbai.
- Granite (Cutting / Polishing)
 - B.E (Mining)
- Printing
 - Dip in Printing Technology
 - B.E in Printing Technology
 - Certificates as Cameraman/Printing/Composing
- Pulp & Paper Engineering/Fibre/Wood Technology
- Sugar/Oil/Food Technology
- Industrial Tribology
- Nuclear Engineering

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GENERAL SCIENCE

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





CAREERS IN SCIENCES - 1

- CHEMISTRY
- PHYSICS
- GEOLOGY
- GEOGRAPHY & GIS
- MATHEMATICS & STATISTICS
- METEOROLOGY
- OCEANOGRAPHY
- COMPUTERS AND
 INFORMATION TECH

- DEFENCE SERVICES
- BIOLOGICAL
 SCIENTISTS &
 BIOTECHNOLOGY
- GENETIC SCIENTISTS
- BIOCHEMISTRY
- MICROBIOLOGY & BIOINFORMATICS
- ANTHROPOLOGY



CAREERS IN SCIENCES - 2

- HOME SCIENCE & HOME ECONOMICS
- NUTRITIONISTS &
 DIETICIANS
- FOOD TECHNOLOGY
- FORENSIC SCIENCE
- AGRICULTURE
- HORTICULURE
- ENVIRONMENT SCIENCE

- DAIRY & POULTRY
 FARMING
 - FISHERY
 - FORESTRY & WILD LIFE
 - RURAL MANAGEMENT
 - FOOD PROCESSING
 - FOOD TECHNOLOGY
 - FORESTRY





Career & Course Options after 10TH & Plus 2 CHEMISTRY & ALLIED FIELDS - 1 Introduction

 Chemistry is a study of substances, their properties, structures and transformations. Chemists study what substances are made of and how they can be combined to make new materials.

Working Conditions

• The job of chemical scientists depends on the area of specialisation. The study involves chemical analysis, synthesis, research and sampling of solids, liquids or gases for determining their composition, properties, physical and chemical changes.

Personality

 Chemistry as a subject for higher study requires a strong scientific base. Scientists involve themselves a lot of experimental work in laboratories as well as researching through theoretical data.





Career & Course Options after 10TH & Plus 2 CHEMISTRY & ALLIED FIELDS - 2

Personality

 The jobs chemical scientists are involved in are related to industries manufacturing diverse products, hence the work environment is highly variable. Nevertheless, in the production of chemicals and allied products there is a significant amount of risk in handling poisonous chemicals.

- Chemical in Drug industry, food industry, plastics, ...
- Organic/Inorganic/Physical/Analytical/Industrial Chemists
- Chemical Engineers (Process)
- Chemical Engineering Technician (Production)
- Chemical Technician (R&D)
- Non-Production Jobs





PHYSICS & ALLIED FIELDS - 1

Introduction

 Physics is a fundamental science and for this reason most other scientists need to study the subject. Chemists, engineers, biologists, as well as doctors need a basic understanding of physics, Astrophysics, Geophysics, Medical physics, Nuclear physics, Meteorology, Astronomy and Biophysics are specialized fields.

Working Conditions

- The job of physicists involves working with mathematical and statistical scientists and is very closely integrated with the work of engineers. It is often difficult to distinguish between the role of engineers and physicists in highly technical fields.
- Physicists work in the laboratory and where equipments designed by them is installed. Industry based jobs require frequent visits to the technical section besides the laboratory.

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VERY



Career & Course Options after 10TH & Plus 2 PHYSICS & ALLIED FIELDS - 2

Personality

 Physicists are quite like all other scientists. Their job requires working with details. Interest in scientific phenomena, patience, perseverance, precision, an inclination to search for real solutions is the strength of all physicists.

- Geophysicists
- Biophysicists
- Medical Physicists
- Experimental Physicists
- Astrophysicists
- Astronomy





Career & Course Options after 10TH & Plus 2 MATHEMATICS & STATISTICS - 1

Introduction

 Mathematics is needed by people in all works of life, to try and sell, to figure costs, to calculate real interest rates on loans, to fill out income-tax forms, to prepare recipes and in a host of other ways.

Working Conditions

• Mathematics is a study of form, structure, operations, and relationships. The work of Mathematicians and Statisticians is office based. The job is essentially a desk job with extensive use of the computer and follows a normal weekly schedule.





Career & Course Options after 10TH & Plus 2 MATHEMATICS & STATISTICS - 2 Personality

 A career in any of the mathematical sciences, including mathematics, statistics, computer science, physical sciences, engineering and other mathematically oriented fields such as actuarial work or accounting requires an aptitude of mathematics. You should enjoy working with figures and solving problems, and should be able to think abstractly as well as concretely.

Operations Research - Introduction

- Mathematics applies itself to operation research. Mathematical models are applied to management and operational data to solve problems.
- Operations Research is generally a team work and ORA are required for a variety of work related issues.





MATHEMATICS & STATISTICS - 3

Working Conditions

• This is an indoor work and required long periods of close concentration on mathematical formulae and their application to specific management concerns Mathematics is needed by people in all works of life, to try and sell, to figure costs, to calculate real interest rates on loans, to fill out income-tax forms, to prepare recipes and in a host of other ways.

Personality

• Excellent mathematical skills and love for mathematics is essential. Analytical and problem solving skills are required.

- Bachelor/Master/Diploma in
 - Mathematical Statistics, Mathematical Applied
 - Mathematics Pure, Statistical Methods, Statistical Applied



Career & Course Options after 10TH & Plus 2 MATHEMATICS & STATISTICS - 4

Courses & Work Area

- Theoretical/Applied/Consultant Mathematicians
- Vedic Mathematics
- Statistics → In Enterprise Resource Planning & Decision Making
- Computing & Maths
- Finance, Medical, Commerce, Planning Commission
- Indian Statistical Service (ISS) \rightarrow UPSC after post-graduation
- Operations Research Analyst
 - Solution with Maths;
 - Masters in Operations Research

Institutes

• Chennai Mathematical Institute, TIFR, ISI





Introduction

 Geology is the Science which studies the earth's history, composition and structure. The term geosciences is used to cover all geological disciplines as each of the geological scientists involve themselves in multidisciplinary work. It includes geochemistry, geophysics, sedimentation, economic geology, and engineering geology as well as historical geology which relates to the study of history of the earth's crust by studying the formation of rocks, geophysicists use the principles of physics and mathematics to study the earth's internal composition, surface and atmosphere and also magnetic, electrical and gravitational forces. Geochemistry is the study of chemical composition of the Earth.

Working Conditions

 A geologist's work can be laboratory based or field based. Most geologists work or supervise exploration work at a variety of sitesdeserts, land forms, ocean floors, riverbeds, mountains, etc. Field jobs involve travelling and working outdoors often in difficult situations.

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Personality

• Geologist's need scientific acumen along with the power of observation, analysis, logic and a spirit of investigation. Good numerical aptitude, clarity and precision in dealing with data of various types is needed.

- Study/Preservation/Clean-up of Environment
- Geochemistry \rightarrow Study of composition of earth
- Marine/Petroleum Geologists, Mineralogists, Geohydrologists, Hydrologists, Paleontologists (Fossils), Seismologists, Stratigraphers (Study of sedimentary rock), Engg Geology, Environmental Geology (waste disposal), Geochromologists (Use radio-active dating), Geomorphologists (study of earth surface), surveyors
 - Selection via UPSC Exam





Career & Course Options after 10TH & Plus 2 GEOGRAPHERS & GIS - 1

Introduction

- Geographers study the distribution and location of physical and cultural phenomena at the local, regional and global scale.
 Specialists in geography are concerned in understanding and studying the impacts of economics or even planned delivery programmes on physical and human landscapes.
- GIS is a technology that attaches a database to an electronic map. GIS technology can be used for scientific investigations, resource management and development planning.

Working Conditions

 Geographers working in various sectors study the distribution of soils and its mineral content, vegetation, landforms, climate and water resources. Geographers spend time in the field while collecting data but most of their time is spent in an office where they collate and analyse information.





Career & Course Options after 10TH & Plus 2 GEOGRAPHERS & GIS - 2

Personality

• Geographers must have acumen to handle statistical data. Observation, skill for drawing inferences based on compiled information, writing reports and making judgements will be required.

Courses & Work Area

 Physical, Human, Medical, Cartography (Maps preparation), Urban, Regional, Economic, Political





Career & Course Options after 10TH & Plus 2 METEOROLOGY - 1

Introduction

 Meteorology is the science related to the study of the atmosphere. Meteorologists study the atmosphere, monitoring and analysing its changes to make interpretations and predictions for the benefit of man. They work in several areas besides weather forecasting. They research radioactive fall out, the dynamics of hurricanes, ozone levels in the stratosphere or work in radio and televised weather bulletins.

Working Conditions

 Most of the work is done in weather labs in comfortable offices. Weather stations are located in many places which may not always be in large cities.





Career & Course Options after 10TH & Plus 2 METEOROLOGY - 2

Personality

• Meteorologists often work under pressure with constraints of time for meeting deadlines particularly while reporting severe weather systems. Their work demands accuracy.

Courses & Work Area

- Study of atmosphere (predict winds, temperature)
- Aviation Meteorology
- Industrial Meteorology (Pollution)
- Physical Meteorology



Career & Course Options after 10TH & Plus 2 OCEANOGRAPHY - 1

Introduction

 With the need for complete and optimum utilisation of natural resources attention has been drawn to the resources under the sea. They study the seas, its coastline, estuaries, coastal waters, shelves and the ocean bed. Their work incorporates the scientific knowledge of biology, chemistry, physics, geology, geophysics and the application of mathematics, engineering science along with the use of computers.

Working Conditions

 Oceanographers work in onshore laboratories, offices and aquariums. The job incorporates conducting studies on samples collected from the sea, preparing plans for sea trips and teaching.



Career & Course Options after 10TH & Plus 2 OCEANOGRAPHY - 2

Personality

• The work requires an enquiring mind, good observation, ability to deal with details and meticulous work.

- Che, Bio, Phy, Geological, Marine (Find Petroleum/Mineral Deposits)
- Bachelors/Masters in Marine Chemistry / Marine Science / Marine Bio-Tech



COMPUTERS & INFORMATION TECH - 1

Introduction

• This field covers a vast area from information technology, business and industry, knowledge management, banking and financial institutions, defence, scientific research, travel and tourism, etc.

Working Conditions

• Based on the area of working, work might be for long hours or fixed hours. Sometimes, if you work for foreign clients, you need to work according to the foreign time zone.

Personality

• The jobs require computer friendly and be interested to work on computers for long hours.





COMPUTERS & INFORMATION TECH - 2

Courses & Work Area

- Hardware: Computer Design/Chip Design/Networking/Technician
- Software: Programmer/System Analyst /Application Programmer / Electronic Data Processing Manager / Enterprise Resource Planning
- Web: Database, Webmaster, Web Designer, E-Commerce, M-Commerce
- B.E/M.E/B.Sc/M.Sc/M.C.A.

Institutes

- Electronics Research & Development Centre of India (ER & DCI) + Roorkee → M.Tech
- VLSI Design & Research Centre, Pune
- Centre for Development of Advanced Computing (CDAC)



DEFENCE SERVICES - 1

Defence services, Paramilitary services, Coastal Guard

• It includes army, navy, air force, and common services. They do service to the nation. People who wish to work in these areas require sacrifice, physical strength, and appropriate mindset.

Boarder Roads

 Boarder roads organisation works in remote inaccessible, economically backward tribal areas, high snow clad mountains, thick forests, and deserts often under adverse situations.

Intelligence Services

 It has two broad categories – Government intelligence offices and private detectives. Both require individuals with grit, courage and discernment.

Personality

• Good health, a high intellect, a disciplined, and preserving bend of mind are the requisite qualities.





Career & Course Options after 10TH & Plus 2 BIOLOGICAL SCIENTISTS - 1

Biological Scientists

• Biological scientists work in varied environments ranging from rigorous outdoor conditions to exacting lab work. Biologists work with toxic substances undertake risk and hence have to exercise great care.

Personality & Working Conditions

 Biological scientists must have an above average aptitude in the understanding of biological, chemical and mathematical concepts. Most of the job is of observation and systematic study hence a systematic approach coupled with patience and curiosity are essential to sustain one through long periods of research and study.





BIOTECHNOLOGY - 2

Biotechnology

 A bundle of techniques applied to living cells is what we call biotechnology. The biotechnologist engineers these living cells to produce a particular product of improved quality. Biotechnology is the exploitation of natural resources at the microbial and molecular level for the benefit of mankind.

Working Conditions

• Biotechnologists largely work in laboratories to conduct scientific research. Sometimes, they need to travel to different scientific centres due to the diversified nature of work.

Personality

• Biotechnology requires intense hard work, perservance and challenge for achieving results. A very bright academic profile with scientific bent of mind is required.





Career & Course Options after 10TH & Plus 2 BIOLOGICAL SCIENTISTS - 3

- Anatomists (Tissue), Aquatic Biologists (life under water), Agronomist (Crop production), Bio-informatics (information from database), Cytologists (Cells), Biochemistry, Biophysics, Curator (Museum), Ecologists, Entomologists (Pests), Geneticists, Microbiologists, Ornithologists (Birds), Pisciculturist (Fish Culture), Mycologist (Control Fungi)
- Indian Council of Medical Research (ICMR)
- Bio-Technology: Inter-discipline in Bio-Science, Bio-Chemistry, Chemical Science, Biological Engineering, Engineering Science, Chemical Engineering.
 - Combined Entrance Exam for M.Tech / M.Sc. / M.Sc(Agri) / M.V.Sc
- Molecular Biology
- Agricultural Bio-Technology



Career & Course Options after 10TH & Plus 2 GENETIC SCIENTISTS

Introduction

• Genetics is the study of heredity. Genetic scientists are involved in pursuing research for identifying particular genes in plant, animal and human tissue samples.

Working Conditions

• Genetic scientists work in laboratories and spend most of the time working on microscopes, computers, etc.

Personality

 Genetic scientists have to go through a prolonged phase of higher education extending frequently beyond 6 years. Scientists in this field require brilliant mathematical and analytical skills besides knowledge of the subject. The field is one of rapid progress hence scientists with a progressive outlook are best suited.





Career & Course Options after 10TH & Plus 2 BIOCHEMISTRY

Introduction

 Biochemistry is a branch which is concerned with the chemistry of the biological processes. Biochemists are mainly engaged in research related to the fields of medicine, agriculture, and nutrition.

Working Conditions

• The work of biochemists is generally carried on in clean, quiet, and modern laboratories.

Personality

• Biochemists are intensively involved in research work and hence must have an inquisitive mind, perseverance and keen observation. The task often continues over long periods of time hence requires patience and tenacity.





Career & Course Options after 10TH & Plus 2 MICROBIOLOGY & BIOINFORMATICS Introduction

 Microbiology is the study of microscopic organisms. Microbiologists study the relationships between microbes and man, animals and plants.

Working Conditions

 Microbiologists work in laboratories located in research organisations, hospitals, food and beverage industries, pharmaceuticals firms.

Personality

• An analytical and scientific temper, intense interest in research, keen observation, perseverance, and hardwork are required.

Bioinformatics

 Bioinformatics encompasses research, development and application of computational tools and aims at expanding the use of biological medical, behavioural, or health data





Career & Course Options after 10TH & Plus 2 ANTHROPOLOGY

Introduction

 Anthropologists trace the origin and evolutionary development of man by studying the changed physical characteristics and cultural, social institutions.

Working Conditions

 Anthropologists work in educational libraries as well as in the field. Fieldwork entails working in difficult and remote areas. Physical stamina and ability to adapt to difficult situations is required.

Personality

• Interest in history, various cultures and customs of tribals and communities are required for this field.

Courses & Work Area

Biochemists, Microbiologists, Anthropologists (Trace the origin & evolution), Bio-informatics.





HOME SCIENCE & HOME ECONOMICS - 1

Introduction

 Home Science has been defined as a field of study built upon many disciplines for the purpose of achieving and maintaining the welfare and well being of home and family life in an ever changing society.

Working Conditions

• Home environment is diverse: Schools, aircraft cabins, textile printing and designing departments, hotels, hospitals, research organisations, marketing divisions, etc.

Personality

• Home Science offers varied areas for specialisation hence the work environment too is diverse. The subject is largely scientific in nature and hence requires and analytical mind the scientific acumen.





HOME SCIENCE & HOME ECONOMICS - 2

Courses & Work Area

- Dietetics & Nutrition
- Child Development
- Textile Designing
- Jobs: Toys design, Dress making, Food analysts.
- Dip in Dyeing & Prating, Dip in Food and Nutrition, Dip in Early Childhood Care & Education
- B.Sc(Home Sci)
 - Textile Chemistry
 - Textiles & Clothing
- PG Dip in Dietetics
- Dip in Dietetics & Public Health Nutrition
- M.Sc (Applied Nutrition)





Career & Course Options after 10TH & Plus 2 NUTRITIONISTS & DIETICIANS

Introduction

 Nutritionists and dieticians deal with the practical means by which we can use information on diet and energy needs to improve our general health and well being. Nutritionists could be dietician, food technologists or home economists. Dieticians especially work to assist people in all their special circumstances in life – the young, the elderly, the sick, nursing mothers, active sports person, the heath conscious and the like.

Working Conditions

• Generally they work for regular hours and in hospitals may be required to work on weekends.

Personality

• An aptitude in science, an interest in diets and the temperament to work in a group, undertake responsibility and qualities vital for this profession.

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Career & Course Options after 10TH & Plus 2 FOOD TECHNOLOGY

Food technologists

 Food technology is the study of science related to processing of food stuffs.

Working Conditions

Food technologists work in offices, laboratories and classrooms.

Personality

• Flood technologists should have an analytical mind, must enjoy technical work and should be good in communicating.





FOOD PROCESSING

Courses & Work Area

- Fruit Technology
- B.A/B.Tech/B.Sc (Home Science/Food Science/Food Technology)
- Central Food Technology Research Institute, Mysore
- B.Sc (Zoology) \rightarrow M.Sc (Fisheries)
- Central Institute of Fisheries Education, Mumbai
- Sugar Technology



Career & Course Options after 10TH & Plus 2 FORENSIC SCIENCE -1

Introduction

• Forensic scientists scientifically analyse, identify, and classify physical evidence relating to criminal or suspected cases of crime. They work in labs.

Personality

• An aptitude for scientific and systematic investigation is required for forensic experts. An enquiring mind, logic, curiosity, systematic work habits are essential for working in this field.





FORENSIC SCIENCE - 2

Courses & Work Area

- Analyse Criminal Cases
- Forensic Odontology \rightarrow Based on Dental Research
- Forensic Pathology \rightarrow Cause of death
- Forensic Toxicology
- Forensic Psychiatry
- Forensic Fingerprint Experts
 - Master/Diploma in Forensic Science





Career & Course Options after 10TH & Plus 2 AGRICULTURE

Introduction

• Agriculture is the backbone of Indian economy.

Working Conditions

• Farming depends on weather conditions and hence could be both challenging and demanding.

Personality

 Agriculturalists work in production, research, business and trade, in banking and finance, in journalism, etc. For each area of work, personal qualities need to match the job requirements.





Career & Course Options after 10TH & Plus 2 HORTICULTURE

Introduction

 Horticulture encompasses cultivation of plants, vegetables, flowers, fruits, herbs, shrubs, bushes, ornamental trees and landscaping of gardens, maintaining nurseries, green houses, gardens, orchards and plantations.

Working Conditions

• Those who work in government sector are responsible for the maintanence of parks, public gardens, official lawns, etc. Horticulturalists work in turf grass maintenance or even as consultants for large turf land. They might work in green houses, outdoors, in shops, nurseries, or golf courses or even in public gardens.

Personality

• Interest in nature, concern for the environment, love for plant life are perhaps the basic requirements for success as a horticulturist.

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Career & Course Options after 10TH & Plus 2 ENVIRONMENT SCIENCE

Introduction

• Environment science concerns itself with the study of plants, flora and fauna, animals, pollution (in air, soil, water).

Working Conditions

• Environment scientists work both in the office and in the field. Field job is for surveying the complex situations causing environmental problems and may require working in unhealthy and difficult environments.

Personality

• They must have intense concern for environment preservation, ecology and sensitivity for protection of the environment, repercussions of tissues concerning environmental degradation and pollution.





Career & Course Options after 10TH & Plus 2 DAIRY & POULTRY FARMING

Introduction

• Dairy industry must maintain strict codes of health and hygiene and thus diary plants are generally clean and equipped with modern machines.

Personality

• The job of diary and poultry farmers requires both scientific acumen and attention for detail. Health and care of the farm animals and birds is of prime concern which requires regular attention and a well structured personal regimen.





Introduction

 Students of fishery work in the development of fish breeding farms, or supervise fish research centres. Fishery scientists work in coastal regions on fish farms, hatcheries essentially working outdoors.

Personality

• Intense interest in marine life as well as scientific interest in propagation and preservation are required.



Career & Course Options after 10TH & Plus 2 FORESTRY & WILD LIFE

Introduction

 Foresters working in the field work in varied terrains and weather conditions. They may even encounter hazardous conditions such as forest fires. The job can be strenuous and may require long hours of walking and driving.

Personality

• People involved with forest management and in the forest services need to be intensely interested in environment, ecology, wildlife and conservation.





Career & Course Options after 10TH & Plus 2 RURAL MANAGEMENT

Introduction

 Rural managers work in offices while planning and interacting with corporate bodies. They have to visit rural area, farmlands for advising and making assessments. The job may demand considerable inland and overseas travel.

Personality

• Rural managers must have interest in farming, trading, planning, and working with a variety of clients. Good communication skills, an above average level of analytical reasoning as well as good understanding of farm production is required.





OTHER OPTIONS - 1

Courses & Work Area

- Fishery
 - Aquatic Biology, Fishery Science, Capture and Culture Fisheries
- Forestry & Wild Life
 - IFS: By UPSC; Only to Science and Engg Graduates
 - Forest Research Institute, Dehradun
- Rural Management
 - National Institute of Agricultural Extension Management.
- Veterinary Science: BVSc / MVSc





OTHER OPTIONS - 2

Courses & Work Area

- Nutritionists & Dieticians
 - Food industry/Clinical dietician
- Food Technology
 - Processing & Preservation of food stuff
 - Central Food Technological Research Institute (CFTRI), Mysore
- Agriculture \rightarrow Horticulture (Cultivation)
- Environment \rightarrow Land conservation, Pollution Management
- Diary & Poultry Farming
 - B.Sc/B.Tech in Diary Technology
 - National Diary Research Institute, Warnal, Haryana





OTHER OPTIONS - 3

Institutes, Courses & Work Area

- Master of Design [M.Des] IIT, Delhi
- School of Planning & Architecture, Delhi
 - Planning (Urban, Regional, Environment, Transport)
 - Landscape Architecture
 - Building Engg & Management
- Indian School of Mines
 - Drilling, Fuel, Mineral, Mine Planning, ...
 - Petroleum, Computer Applications
 - Applied Geology/Geophysics
- Thapar Institute of Engg & Tech, Patiala
 - Engg Branches





OTHER OPTIONS - 4

Institutes, Courses & Work Area

- Anna University
 - Applied Science (M.Sc.)
 - Town Planning (M.T.P.)
 - Remote Sensing (M.Tech)
- BIT, Ranchi
- BITS, Pilani
- Cochin Univ of Sci & Tech, Cochin
 - Polymer Tech, Atmospheric Science
- IISc, Bangalore M.Tech (Mgt Sci)
- JNTU, Hyderabad
 - M.Tech in Urban & Regional Planning, Textile Tech, Foundry-Forge Tech, Mineral Processing, Textiles, M.E (Public Health)

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OTHER OPTIONS - 5

Institutes, Courses & Work Area

- Physical Education: B.P.Ed.
- Journalism: Institute of Mass Communication, Delhi
 - Bachelor of Journalism, Bachelor of Journalism & Mass Communication, Bachelor of Mass Communication
- Criminology: M.A, Dip at Dharwad University, Karnataka
- Forensic Department
- Teaching: Dip for Primary Teacher, Dip for Nursery Teacher
- Dip/Certificate/Bachelor/Master in Library Science
- Master of Rural Studies, Statistics, Labour Welfare/Studies





CAREERS IN MEDICINE

- MBBS / BUMS / BHMS / BNYS / BAMS
- DENTAL SCIENCES
- PARAMEDICAL SCIENCES
- NURSING
- PHYSICAL OCCUPATIONAL, ORTHOTIC AND PROSTHETIC
- SPEECH THERAPISTS AND
 AUDIOLOGISTS
- MEDICAL TRANSCRIPTION

- HEALTHCARE AND
 HOSPITAL MANAGEMENT
- MEDICAL TECHNOLOGISTS -RADIOGRAPHERS & OPTOMETRISTS
- PHARMACY
- DARK ROOM ASSISTANT
- VETERINARY SCIENCE







Career & Course Options after 10TH & Plus 2 MEDICINE AND DENTISTRY

Introduction

• Physicians work in rural or government hospitals and clinics have to work under stringent conditions where as in private hospitals the work environment matches that of corporate comforts.

Working Conditions

• Medical profession is one of intense mental activity. The study of medicine is long drawn and the training is extensive which demands sustained interest and acumen for hard work.

Homeopathic Medicine – Ayurvedic and Unani

• Requires good mental ability and aptitude to logical thinking.





Career & Course Options after 10TH & Plus 2 PARA-MEDICAL COURSES -1

Para-Medical Courses

 Nursing profession is one which demands unstinted dedication. Patience, professional commitment, orderliness in work, responsibility, punctuality are essential characteristics for the nursing professionals.

Physical Occupational, Orthotic and Prosthetic

 Work goes in clinical setting. They work with equipments which are placed generally in location which endures freedom of movement.

Personality

• They require varied skills to deal with patients, handle equipment and to work in different environments. The work demands an organised and systematic way of working. Based on the type of ships, we need to adapt to our work. Old ships are not of excellent shape.





Career & Course Options after 10TH & Plus 2 PARA-MEDICAL COURSES - 2

Speech Therapists and Audiologists

- They work in hospitals, clinics, nursing homes, etc.
 Personality
- They work with people of all ages. Adapting to the needs of patients from different age groups requires tremendous patience and understanding. Clarity of verbal language, diction and tone are important for this profession. Work goes in clinical setting. They work with equipments which are placed generally in location which endures freedom of movement.

Perfusionist

- Trained health professional who operates the heart-lung machine during cardiac surgery and other surgeries that require cardiopulmonary bypass.
 - B.Sc & PG Diploma



PARA-MEDICAL COURSES - 3

Medical Transcription

• Office simulated work.

Personality

• Ability to sit and work for long hours in one place is required. Medical transcriptionists must have a good command over English, an ability to understand and transcribe American speech loaded with medical terminology, ability to understand diverse accents, dialectical variations and others.

Healthcare and Hospital Management

• Job is office based with constant visits to various hospital departments and community centres.

Personality

• Ability to deal with people from diverse backgrounds is an essential quality of hospital administration.





PARA-MEDICAL COURSES - 4

Medical Technologists – Radiographers and Optometrists

• Work in hospitals, clinics, etc.

Personality

• They need to have a scientific bend of mind. Diagnosis requires the use of diagnostic equipment for radiological, pathological, biochemical or microbial and opthalmological investigations. Precision, accuracy and meticulous handling is essential for carrying on the job.

Pharmacists

• They work in hospitals, retail/wholesale medical shops and research institutes.

Personality

• They must have scientific bend of mind and should have interest in medicine.





Career & Course Options after 10TH & Plus 2 MEDICINE & DENTISTRY – 1

Courses & Work Area

- MBBS / MD / MS / DM / MCh
- BDS / MDS
- For Foreign Graduates, National Board of Examinations
- Homoeopathic Medicine BHMS
- Ayurvedic & Unani Medicine
- Nursing
 - Dip in Nursing
 - B.Sc (Nursing)
 - Certificate in General Nursing
 - All India Admission Tests

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Career & Course Options after 10TH & Plus 2 MEDICINE & DENTISTRY - 2

Courses & Work Area

- Physical & Occupations Therapists, Orthotic & Prosthetic Tech
 - Lib Injuries & body movements
 - Bachelors in Physiotherapy, Occupational Theraphy, Prosthetics & Orthotics, Audiology and Speech language Pathology, Hearing Language & Speech, Visual Impairment
- Speech Therapists & Audiologists
 - Deal with hearing problem
- Ali Yavar Jung National Institute for hearing handicapped, Bandra, Mumbai





Career & Course Options after 10TH & Plus 2 MEDICINE & DENTISTRY - 3

Courses & Work Area

- Medical Technologists: Lab
- Radiographers: X-Ray
- Optometrists: Visual Defects
- B.Sc
- Opthalmic Assistant Course
- Pharmists
 - Retail, industrial, research
 - B.Pharm, M.Pharm
- Medical Transcription
 - Make report based on recorded message
- Health Care & Hospital Management
 - In charge of facilities
 - Masters in Hospital Administration



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Career & Course Options after 10TH & Plus 2 MEDICINE & DENTISTRY - 4

Courses & Work Area

- Indian Council of Medical Research Fellowships
- Certificates
 - Dental Mechanics Certificate
 - Dental Hygienist Certificate
- Medical Record Technician
- Vaccinator
- Dark Room Assistant
- Diagnostic Radiographer
- Therapeutic Radiographer
- Sanitary Inspector
- Combined Medical Services Exam or UPSC

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Career & Course Options after 10TH & Plus 2 VETERINARY SCIENCE

Introduction

- Veterinary Science is a medical profession that deals with the control of disease in animals.
- It also involves the breeding and scientific handling of livestock.
- Veterinarians work in hospitals and clinics. They may even work in mobile clinics particularly on large stud or animal farms or wild life sanctuaries. Often they have to work outdoors particularly when they are dealing with large animals.

Personality

• The work of vets requires a deep and abiding interest in animals. A desire to treat mute animals and living creatures should be intense and enduring.





PARA-MEDICAL - 1

Courses & Work Area

- Pharmacy: Dip, B.Pharm
- Physiotherapy:
 - All India Institute of Physical Medicine and Rehabilitation.
- Refractionist
- Sanitary Inspector: Check water, ...
- Nurse
- Vaccinator
- Lab Technician





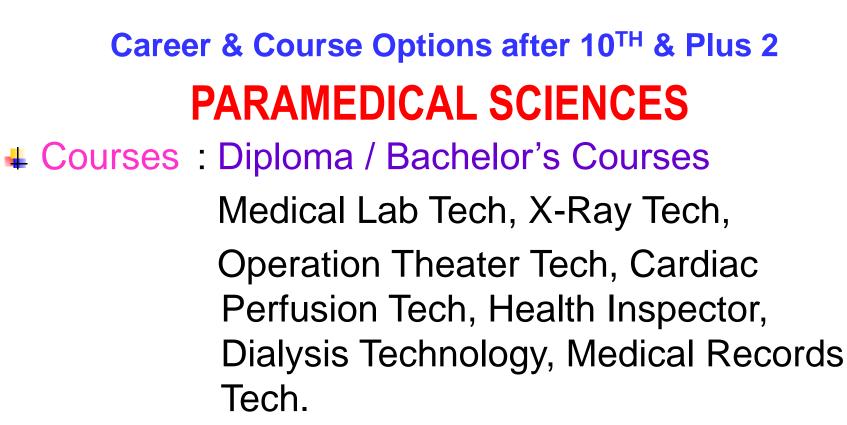
PARA-MEDICAL - 2

Courses & Work Area

- Radiography
- Dental Auxiliary: Hygiene & Mechanic; 2 years certificate
- Vertinary Science & Animal Husbandry
 - B.V.Sc. & A.H. (Bachelor Degree in Veterinary Science and Animal Husbandry).
- Dental Mechanics & Dental Hygenist Certificate Course.
- Optician Vaccinator
- Dark Room Assistant
- B.Sc: Diary Technology, Fisheries, Sericulture, Agriculture Marketing & Co-op
- B.Tech (Food Sciences)







- **Eligibility** : 50% in 2nd PUC.
- Duration : 2 years/ 3 years
- **Cost** : Min : Rs. 2600/- per year.

Max : 15,000/-







PARAMEDICAL SCIENCES

 Scope : Jobs in Hospitals, Private Clinics, Nursing homes, Govt. jobs, etc..
 Excellent jobs in foreign. (Huge pay)

- Further Studies
 - : Bachelor's / Master's Courses in any other Paramedical sciences.
- Part time Jobs
 - : Rs.2500/- (minimum).

Earn while learn.





Career & Course Options after 10TH & Plus 2 CAREERS IN COMMERCE

- DESIGNERS
- FASHION TECHNOLOGY
- TEXTILE DESIGNERS
- ACCESSORY/JEWELLERY
 DESIGNERS
- INTERIOR & EXTERIOR
 DESIGN
- FINE ARTS
- CARTOONIST
- PHOTOGRAPHY

- PRINT JOURNALISM
- MASS COMMUNICATION
- ELECTRONIC JOURNALISM
- FILM MAKING
- ADVERTISING
- PUBLIC RELATIONS
- MARKET RESEARCH
- EVENT MANAGEMENT
- RETAIL MARKETING







Career & Course Options after 10TH & Plus 2 DESIGNERS - 1

Introduction

 'Industrial Design' refers to an activity that has to do with products and objects that are used for practical functions. Designers organize and design articles, products and materials in such a way that they not only serve the purpose for which they were intended but are visually pleasing as well.

Working Conditions

• Working conditions vary with the place of employment. Designers employed by manufacturing establishments or design firms generally work regular hours in well-lighted and comfortable settings.

Personality

• They must be creative and artistic with a good imagination. They should be able to think in a clear, logical manner, analyse problems and come up with original solutions.

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Career & Course Options after 10TH & Plus 2 DESIGNERS - 2

Courses & Work Area

- Product, Ceramic, Furniture, Craft, Automobile, Visual Communication, Textile & Apparel
- Papers/TV/CD/Advert

- National Institute of Design, Ahmedabad
- IIT, Mumbai
- Indian Institute of Crafts & Design, Jaipur
- Centre of Electronics Design & Tech of India, Mohali





Career & Course Options after 10TH & Plus 2 FASHION INDUSTRY

Introduction

 Fashion is a term commonly used in relation to clothes, dresses, garments, textiles, etc. Fashion designers create designs for almost anything which is a part of the garment of men, women and children.

Working Conditions

• The work of a fashion designer is both competitive and stressful. Constant excitement, limelight and glamour set the tone for work.

Personality

• Fashion designing is a basically a creative field and success in this field is dependent more on the inherent creativity and formal training.





TEXTILE DESIGNERS

Working Conditions

• They work with colours, dyes and varied materials while designing. Long hours of work while creating samples and designs is spent in the design studio.

Personality

• Knowledge of colour concepts, colour preferences, a good hand in drawing and illustration, creative imagination and creative talent are required by textile designers.





Career & Course Options after 10TH & Plus 2 FASHION TECHNOLOGY

Courses & Work Area

- Garment Manufacturing Technology
- Diploma in Dress designing and manufacturing
- Textile designing
- Fashion journalism: Freelance; fashion photography
- Degree in Fine Arts and Commercial Art
- Leather: Leather, Footwear Tech
- Photography: Creative, Press, Medical, Industrial & Scientific

Institutes

• National Institute of Fashion Technology





Career & Course Options after 10TH & Plus 2 FASHION INDUSTRY

Courses & Work Area

- Research, Design, Patterns, Merchandise
- Design, Marketing, Manufacture, Fashion Coordinators

Institutes

- National Institute of Fashion Tech Hyderabad, Chennai, New Delhi, ...
 - Fashion, Leather, Textile, Footwear, Communication Design, Finishing/Packaging
- National Institute of Design
- Mangalore Institute of Fashion Tech
- Central Leather Research Institute, Chennai
- Central Footwear Training Institute, Agra



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ACCESSORY/JEWELLERY DESIGNERS - 1

Introduction

 Accessory design encompasses designing of all accessories that complete the fashion image. Designing of millinery, jewellery, handbags, shoes, belts, hosiery, accessories for the head/hair etc. are part of accessory design programme.

Working Conditions

• Work environment is influenced by the nature of raw material used. Shoe and leather accessory designers work with leather or other tough materials while jewellery designers work with precious metals.

Personality

• They are very creative. The profession requires an eye for detail, good observation, fashion awareness and precision.





ACCESSORY/JEWELLERY DESIGNERS - 2

Courses & Work Area

• Gemmology: Assessing Quality

- Gemmology Institute of India, Mumbai
- Indian Diamond Institute, Surat
- Indian Institute of Gemmology, Delhi
 - Gem Identification
 - Diamond Grading
 - Jewellery Design





INTERIOR & EXTERIOR DESIGN - 1

Introduction

 Interior designers work in varied environments as they apply their expertise to decorate shops, homes, hotels, commercial complexes, lounges and special sets, etc. Interacting with technical staff, masons, carpenters offers challenge as communication requirements are tough.

Personality

• Designers need a scientific aptitude, an analytical mind, ability to deal with technical details, curiosity about trends, styles and tastes and the ability to work as part of a team.



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Career & Course Options after 10TH & Plus 2 INTERIOR & EXTERIOR DESIGN - 2

Courses & Work Area

• Ventilation, Air-condition, hotel,...

- School of Interior Design, Ahmedabad
- University of Madras
- Avinashilingam Institute of Home Science & Higher Education, Coimbatore





Career & Course Options after 10TH & Plus 2 FINE ARTS - 1

Introduction

• The work of fine artists is a form of self expression while the work of applied artists finds commercial application. Applied artists find employment in advertising agencies, interior design and display, exhibition work, government and semi-government undertakings, etc.

Working Conditions

 The work of artists requires creativity, imagination, curiosity and a sense of adventure. They have to make visually appealing presentations and hence they work with a variety of materials.

Personality

• They should be creative, fond of colours, shapes and form. There is an intense urge to explore a medium of self expression.

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





Career & Course Options after 10TH & Plus 2 FINE ARTS - 2

Courses & Work Area

- Greeting Card Design, Web Design, House Design, Media Design, Screen Printing
- Bachelor of Fine Arts (BFA)
- Diploma / Master of Fine Arts

Institutes

- University of Madras
- JNTU, Hyderabad
- Avinashilingam Institute of Home Science & Higher Education, Coimbatore
- Bharathidasan University, Trichy

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





Career & Course Options after 10TH & Plus 2 CARTOONIST - 1

Introduction

• Cartoonists express critically, sarcastically and wittingly their perceptions, the subjects moods through their strokes and cutting images. Cartooning as an art uses simple strokes for creating exciting characters that spring to life on news pages.

Working Conditions

• Cartoonists are generally freelancers. They work in the most causal settings also besides of course working from Art Studios.

Personality

• Cartoonists draw upon both a sense on humour and proportion as they see proportion even in disproportion. A basic drawing/sketching skill is an asset though no formal training is required.

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Career & Course Options after 10TH & Plus 2 CARTOONIST - 2

Courses & Work Area

Cartoon Courses

- Raye Burns School, Delhi
- Santhaan's Chitra Vidalayan, Chennai
 - Course in Cartoon (Correspondence)





Career & Course Options after 10TH & Plus 2 PHOTOGRAPHY - 1

Introduction

• Photography is an art, and like music and most other arts, needs practice and perseverance. It is not enough to know how to operate the camera alone.

Working Conditions

• Photographers work both outdoors, in studios and at special sets according to their area of specialisation.

Personality

• One must have that extra quality, an interest in visuals, an attentiveness to colour, shape, and shadow, and interest in light, in observing how colours look on certain days, for example, on dull lays, or golden sunsets.





Career & Course Options after 10TH & Plus 2 PHOTOGRAPHY - 2

Courses & Work Area

- Commercial Photography, Photo Journalism, Industrial, Medical, Environmental, Fashion Photography
- B.A (Photography)

Institutes

- NIFT (Announce: Nov)
- Jamia Milia (Diploma)
- NID (Announce: Sep last week)

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





Career & Course Options after 10TH & Plus 2 PRINT JOURNALISM -1

Introduction

 Journalism is the business of giving news. Newspapers, from big dailies to small town and local regional dailies, have been a major source for recording and giving news about all conceivable to millions of readers everyday.

Working Conditions

• The work of reporters and correspondents is usually hectic. They work under pressure to meet deadlines and may work under trying conditions.

Personality

 Journalists need to have a broad based education, good general knowledge and a style of writing that is accurate, readable and informed. Journalists need to be observant, with keen interest in current affairs.





Career & Course Options after 10TH & Plus 2 PRINT JOURNALISM - 2

Courses & Work Area

- Newspaper Journalism [Editors, Reporters, Columnist, Commentators], Magazine Journalism, Web Journalism
- Dip in Online Journalism
- Dip in Journalism
- Dip in Media Management
- Dip in Media & Communication
- Bachelor of Mass Communication (BMC)
- BA (Script Writing)
- Bachelor of Communication & Journalism

- Madurai Kamaraj University,
- Manonmanium Sundaranar University, ...





MASS COMMUNICATION

Courses & Work Area

- TV/Radio
- Vellotype (Speech to Text)
- Newspaper
- Press trust of India
- Engrave/ Proof Reading/ Composing/ Program Announcer

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





Career & Course Options after 10TH & Plus 2 ELECTRONIC JOURNALISM - 1

Introduction

• Jobs in television industry can be divided into reporting, anchoring and production. For TV and films, production involves pre-production work, production and then post production work.

Working Conditions

• Work in radio and television stations is usually very pleasant. Modern facilities and technologies make working convenient and precise.

Personality

• Generally, good communication skills, ability to work as a team, innovative and enthusiastic, inquisitive and resourceful are requisites.





Career & Course Options after 10TH & Plus 2 ELECTRONIC JOURNALISM - 2

Courses & Work Area

- Script Writing, Camera Team, Announcer
- B.Sc (Mass Communication)

- National Institute of Ameateur Radio, Hyderabad (NIAR)
- CIEFL B.Sc (Electronic Media)
- Indian Institute of Mass Communication, Delhi





Career & Course Options after 10TH & Plus 2 FILM MAKING

Introduction

• The roles and responsibilities of people involved in making a film often overlap and coincide, depending on the type of film being made. Number of people involved depends on the type of film.

Working Conditions

 Acting demands patience and total commitment, because actors must wait for parts or filming schedules, work long hours and often travel. Flawless performances require tedious memorising of lines and repetitive rehearsals.

Personality

• A strong will, determination and love for what you are doing will be needed to continue after many rejections.

Actors, dancers and musicians

• Actors work mainly indoors in theatres and studios and for films and TV on location. Performing artists are creative people. Patience, dedication and hard work are required for success. Adaptability, ability to work with a team, discipline and responsibility are other essential characteristics





Career & Course Options after 10TH & Plus 2 ADVERTISING - 1

Introduction

 Contrary to popular belief, advertising is a difficult career. The working hours are long, jobs are demanding, personal lives are non existent and starting salaries are low. The sheer work pressure keeps an individual from getting affected by the abundant glamour all around.

Working Conditions

• Advertisement agencies are based within office settings.

Personality

• The ability to communicate is vital. They face the challenge of competing in the market with other agencies; hence need to have drive determination and tremendous physical and mental stamina.





Career & Course Options after 10TH & Plus 2 ADVERTISING - 2

Courses & Work Area

• Media Planner, Media Sales

Institutes

- Mudra Institute of Communications, Ahmedabad
 - B.Sc. (Fine Arts)
- Institute of Communications Management, Bangalore
 - Diploma in Advertisement Marketing
- Chennai Institute of Communications, Chennai
 - Diploma in Advertisement Marketing
- Bharathiar University, Coimbatore
 - B.A (Advertisement, Sales, Promotion & Sales Management)





Career & Course Options after 10TH & Plus 2 **PUBLIC RELATIONS**

Introduction

 Public Relations has emerged from a simple operation of corporate publicity to a broad based management function popularly termed as Corporate Communication. Public Relations professionals work in offices with adequate secretarial help. They are expected to maintain good appearance, social poise, and a society precise conduct.

Working Conditions & Personality

• Public Relation officers work with journalists, managers and employees of an organisation and members of the public. They have to be good at getting on with them. The basic personality ingredients for success in PR work is sociability, tact, patience and diplomacy.





Career & Course Options after 10TH & Plus 2 MARKET RESEARCH

Introduction

 Market Research involves data collection and data interpretation required for analysis and predictions for guiding business and related decisions. Research is conducted for assessing consumer opinion related to brand name, trademark, product design, packaging, etc. for providing services to a company for its marketing and new product ventures.

Working Conditions

• Requires minimum of a 40 hour office work.

Personality

• They require an analytical mind, numerical aptitude, good communication and peoples skills.



Career & Course Options after 10TH & Plus 2 EVENT MANAGEMENT

Introduction

• Event Management involves planning, organising, and execution of live events, which could include a brand/products launch, an exhibition, a concert, or even a conference.

Working Conditions

• Travel, working with different groups for services at multiple levels makes the work environment varied.

Personality

• Inter personal and people management skills are at the heart of the profession. Organisational skills along with creativity and uniqueness are needed.





RETAIL MARKETING

Introduction

 Retail marketing unlike the traditional family run stores have the classic – 4 Ps (Product, promotion, price and place). Retail management has a fifth – People – who play a critical role, be it as employees who run the business, or as consumers whose needs are being serviced by these employees.

Personality

• The retail sector needs young, dynamic creative, educated and skilled people. Retailing involves personal commitment and passion, vision, a proactive approach and positive aptitude.





PUBLIC RELATIONS, EVENT MANAGEMENT, RETAIL MARKETING

- Indian Institute of Mass Communication, Jawaharlal Nehru University Campus, New Delhi
- Event Management
 - Live Events in TV
 - Indian Institute of Event Management, Delhi
 - MICA
- Retail Marketing
 - Indian Institute of Retail Management, Pune
 - IIM, Ahmedabad Diploma





TRAVEL & TOURISM - 1

Introduction

 The jobs in the travel sector are diverse in nature. Travel is a very competitive field since all travel agents are capable of providing almost the same kind of facilities and services. Hence travel agents work in an atmosphere of keen competition for refer.

Personality

• The prime requirement for success in the field of travel and tourism is a genuine interest in travel. Personal knowledge and experience of travel to major tourist destinations, hotels, places of interest, local customs, would make a travel agent an authentic and well versed source of guidance to the prospective tourist.





TRAVEL & TOURISM - 2

Courses & Work Area

- Travel Agencies & Plan
- Accommodation + sites of visit, ...
- Diploma in Tourism/Catering/Sociology
- Diploma in Hotel Management
 - National Council of Hotel Management & Catering Technology, Delhi.
- PG Diploma in Tourism
- Diploma in Food Preservation
 - Indian Institute of Tourism & Travel Management





Career & Course Options after 10TH & Plus 2 TRAVEL & TOURISM - 3

- International Air Transport Association (IATA) Training
- Indian Institute of Tourism & Travel Management (IITM), Gwalior
 - Diploma & PG Diploma
- University of Madras
 - B.A (Travel & Tourism)





Career & Course Options after 10TH & Plus 2 HOTEL INDUSTRY - 1

Introduction

 Hotel Industry has a great variety in terms of size, clientele it aims to serve, and its location. However, for the efficient functioning of any hotel – large or small, work is divided among key departments – Management, catering, front office, housekeeping, accounting, marketing, engineering, forecasting.

Working Conditions

• Employees in most of the hotel operational areas enjoy pleasant, clean and comfortable working conditions.

Personality

• This dynamic and variegated sector offers a whole range of jobs for young men and women with an outgoing and pleasant personality, a flair for creativity and capacity for hard work.



Career & Course Options after 10TH & Plus 2 HOTEL INDUSTRY - 2

Courses & Work Area

- Catering, Front Office, House Keeping, Forecasting, Marketing, Engineering, Diets/Nutrition
- Diploma / Degree in Hotel Management

- National Council for Hotel Management & Catering Tech, Delhi – Apply in January.
- Institute of Hotel Management, CIT Campus, Chennai



Career & Course Options after 10TH & Plus 2 CAREERS IN MANAGEMENT



- CHARTERED ACCOUNTANTS
- COST & MANAGEMENT ACCOUNTANTS
- CHARTERED & COST ACCOUNTING
- FINANCE MANAGERS & ANALYSTS
- STOCK BROKERS & INVESTMENT ANALYSTS
- BANKING
- INSURANCE ACTURIALS / FINANCIAL PLANNERS
- COMPANY SECRETARY

- LAW AND RELATED OPTIONS
- LAW & COMPANY SECRETARY
- HUMAN RESOURCE / PERSONNEL
 MANAGEMENT
- FINANCE MANAGEMENT
- PRODUCTION & MATERIAL
 MANAGEMENT
- EXPORT MANAGEMENT
- HEALTH & HOSPITAL
 MANAGEMENT
- TECHNOLOGY MANAGEMENT
- PROFESSIONAL MANAGEMENT





Career & Course Options after 10TH & Plus 2 CHARTERED ACCOUNTANTS

Introduction

• Chartered Accountants are found to be working in private practice or as employed in a firm. The range of work in private practice can vary enormously according to the size and place (city) of practice.

Working Conditions

• Accounting is essentially a desk job. Although computer work has replaced paperwork to a considerable extent the job yet can be routine. Concentration and attention to detail are critical.

Personality

• Accountants must have good numerical ability and should enjoy working with numbers. An analytical mind to interpret data, a logical and methodical approach helps them present their finding accurately.





COST & MANAGEMENT ACCOUNTANTS

Introduction

• A Management accountant collects, organises, collates and analyses information from all parts of the organization, including all the financial departments.

Personality

• Cost and Management accountancy like other accountancy jobs is a desk job. Analytical and judgement skills are the most important requirements. They need to apply their knowledge for assessing different kinds of situations and suggesting the right kind of cost prescriptions, an objective outlook is very necessary.

Financial Managers & Analysts

• Working conditions in financial institutions are very pleasant. Same as Chartered Accountants





Career & Course Options after 10TH & Plus 2 CHARTERED AND COST ACCOUNTING

Courses & Work Area

• Tax; Cost Accounting

Institutes

- Institute of Chartered Accountants of India (ICAI)
 - Certified Public Accountant (CPA)
- Cost and Management Accountants
 - ICWA: Foundation, Intermediate and Final Course





Career & Course Options after 10TH & Plus 2 FINANCE MANAGERS & ANALYSTS

Courses, Work Area & Institutes

- Finance Managers
 - MBA (Finance); MFC (Master of Finance Control)
 - Bachelor of Financial & Investment Analysis
 - B.Sc (Finance Accounting) Univ. of Madras
- Finance Analysts
 - Institute of Chartered Financial Analysts of India (ICFAI)
 - Certified Finance Analysts Course
 - Narsee Monjee, Mumbai
 - BITS, Pilani
 - Xavier Institute of Management, Bhubaneshwar





Career & Course Options after 10TH & Plus 2 STOCK BROKERS & INVESTMENT ANALYSTS - 1

Introduction

 Stock exchanges are like market places where stockbrokers buy and sell securities for individuals or institutions. The work of stock brokers has become a challenging one as it incorporates specialised knowledge as well as professional acumen. Stock market and related functioning has become computerised which obviously demands information management skills.





STOCK BROKERS & INVESTMENT ANALYSTS - 2

Courses & Work Area

• Equity Analysts, Mutual Fund

Institutes

- AMFI (Association of Mutual Funds in India) MF-Test
- BSE (Bombay Stock Exchange) Certification
- Narsee Monjee, Mumbai
- IIM, Calcutta





Introduction

 Bank managers have the responsibility for running the branch, managing their staff and for generating profits.

Working Conditions

• Branch managers work in branch offices which can vary in size from a small branch with limited staff, to large branches with many on the staff. They spend time visiting customers at their offices, factories or farms and visiting large client companies.

Personality

• It should be observed that most of the same aptitudes, interests, and educational qualifications useful in banking are also utilised in other financial institutions such as bank clearing house associations, insurance companies, savings and loan associations, credit unions, instalment loan companies, investment and mortgage companies, financial and fiscal departments of corporations, and in such government institutions as Reserve Bank, Insurance corporation and export-import bank.





Courses & Work Area

- Merchant Banking, Investment Banking
- B.Com (With Banking)
- Diploma In Bank Management
- Diploma In Banking Co-op
- B.A (Bank Management)

Institutes

- Institute for Development & Research in Banking Technology, Hyderabad
- National Institute of Bank Management, Pune

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INSURANCE & ACTURIALS / FINANCIAL PLANNERS Insurance & Acturials

 It is important that people who sell the companies policies are well versed with the same. This will help them to sell the right kind of products to the consumer.

Financial Planners

- Financial planning process, as defined by the Certified Financial Planner Board of Standards includes the following six key steps:
 - 1. Establishing and defining the client-planner relationship.
 - 2. Gathering client data, including goals
 - 3. Analyzing and evaluating the client's financial status
 - 4. Developing and preserving financial planning recommendations and/or alternatives
 - 5. Implementing the financial planning recommendations
 - 6. Monitoring the financial planning recommendations

Personality

• The best financial planners have two vital skills – people skills and analytical skills.





Career & Course Options after 10TH & Plus 2 INSURANCE & ACTURIALS

Courses & Work Area

- AAO Entry
- Acturial Society of India, Mumbai
- B.Com (with Insurance)
- Dip in Acturial Sciences

Institutes

- Indian Insurance Business School, Noida
- Birla Institute of Tech & Management, Delhi.
- Financial Planners
 - International College of Financial Planning, New Delhi

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Career & Course Options after 10TH & Plus 2 COMPANY SECRETARY

Introduction

- It is essentially an office-based job, combining a vast amount of documentation with a good deal of discussion in committees and meetings.
- The work of a secretary is basically of an assistant. He/She manages all office work, receive phone calls, takes messages and carries out the bosses instructions.

Personality

- Company secretaries should be organised and must have capability to deal with a number of problems at the same time. Ability to understand complex and technical issues in a clear unbiased manner, and an excellent command of written and spoken English is essential.
- If you find routing office work interesting and like a blend of administrative and clerical functioning, secretarial training will provide a good beginning. Good communication skills – verbal and written, organizing ability, confidence, responsibility, Public Relations acumen, willingness to learn, obey and take orders are required.

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Career & Course Options after 10TH & Plus 2 LAW AND RELATED OPTIONS

Introduction

 As our laws are so complex, the work of lawyers and judges is very significant. Laws affect our lives in variety of ways.
 Solicitors work from offices though they may require to travel to visit client's premises.

Personality

• Lawyers, solicitors, legal executives all need good intellectual ability, the ability to assimilate and analyse facts quickly. They need to distinguish the relevant from the irrelevant, screen evidence, and apply the law to the situation under scrutiny.





Career & Course Options after 10TH & Plus 2 LAW & COMPANY SECRETARY - 1

Courses & Work Area

- Company Secretary handles law, tax and manages the company.
- Courses: Business, Accountancy, Management, Laws
- Law: Civil, International, Labour, Tax
- Lawyers with Books/Journals
- 5 Year B.A LLB After +2
- 3 Year LLB After graduation





Career & Course Options after 10TH & Plus 2 LAW & COMPANY SECRETARY - 2

Institutes

- Institute of Company Secretaries of India
 - Member: Prelim, Intermediate, Final Courses
- National Law School, Bangalore (Advt.: March)
- Government Law College, Mumbai
- National Law Institute University, Bhopal
- B.Sc. (Criminology), B.Sc. (Forensic Science) Also Diploma.





Career & Course Options after 10TH & Plus 2 HUMAN RESOURCE / PERSONNEL MANAGEMENT

Introduction

 Personnel officers are responsible for selecting the right people and helping to make sure that they are managed effectively. The work of personnel officers can differ considerably from one organization to another.

Personality

• Personnel officers spend most of their time in offices attending meetings and individual members of staff. They travel locally and to other sites such as branch offices.





Career & Course Options after 10TH & Plus 2 FINANCE MANAGEMENT

Introduction

 Working conditions in financial institutions are comfortable and pleasant. Offices are equipped with computer systems and are generally well maintained.

Personality

• Superior analytical and logical ability is needed to become a finance manager besides mathematical ability and the acumen to plan, interpret and predict.





Career & Course Options after 10TH & Plus 2 PRODUCTION & MATERIAL MANAGEMENT

• Industrial production managers have to divide their time between the shop floor and their office. While on the floor, they follow established health and safety practices and wear the required protective clothing and equipment. The time in the office, located on or near the production floor, is usually spent meeting with subordinates or other department managers analysing production data, and writing and reviewing report.

Material Management

• Material managers are located in the stores of industries. They work often in difficult conditions particularly while carrying out checks on the stores.

Personality

• Orderly, good at keeping records, aware of products in the market and good observation are essential qualities.

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EXPORT MANAGEMENT

Introduction

• Export & import managers work from offices. They work odd hours to coordinate with global traders.

Personality

• The ability to analyse quickly, make purchase decision, evaluate products before shipment needs alertness at all times. Ability to work with a team, communicate in spoken and written medium, knowledge of foreign languages is required.





Career & Course Options after 10TH & Plus 2 HEALTH & HOSPITAL MANAGEMENT

Introduction

• Health administration is carried out from office located in a medical or corporation complex. Hospital administrators usually work out of large offices in the hospital.

Personality

• Potential senior hospital managers and CEOs should have an insight into every aspect of clinical care, financial and legal matters of running a hospital and even have knowledge of public relations. The job requires the administrator to be dynamic.





Career & Course Options after 10TH & Plus 2 TECHNOLOGY MANAGEMENT

Introduction

• Technology management encompasses R&D management, innovation management, planning of technology and strategic management of technology.

Personality

• Analytical approach, problem solving skills, and excellent intellect are critical features of a techno manager.





Career & Course Options after 10TH & Plus 2 PROFESSIONAL MANAGEMENT

Courses & Work Area

- Degree/Diploma in Personnel Management, Industrial Relations, Industrial Management
- Institute of Rural Management, Anand
- Diploma in Marketing Management
- Diploma in Personnel Management & Labour Welfare
- PG Diploma in Business Management
- PG Diploma in Industrial Management/Relations
- Diploma in Export/Import Management
- Diploma in Materials Management
- Diploma in Project Management
- Diploma in Production Management

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Career & Course Options after 10TH & Plus 2 VARIOUS MANAGEMENT OPTIONS - 1

Introduction

 Sales, Marketing, Market Research, Product development are some of the various options available. Marketing managers are generally working in the office, but they spend much of their time in discussion with other section managers (senior and junior), in tours to visit customers and sale outlets.

Personality

• Marketing managers need to be good communicators. They should be able to talk and write clearly and persuasively to people at all levels both inside and outside the company.





VARIOUS MANAGEMENT OPTIONS - 2

Courses & Work Area

- Marketing & Sales Management
 - Market Research
- Public Relations / Human Resources
 - Recruitment and Training; Talent Hunting
- Finance Management
 - Treasure (Foreign Trades); Corporate Finance
 - Equity Analyst (Guiding Investment)
- Production Management
- Export Management (Cargo, Customs)
- Health & Hospital Management
- Tech Management
- BBS Studies/BBM Management /BBA -Administration





VARIOUS MANAGEMENT OPTIONS - 3

Courses & Work Area

- Various Managements:
 - Finance Management
 - Materials Management
 - Marketing Management
 - International Management
 - Rural Management
 - Hotel Management
 - Hospital Management
- Master of: Business Statistics, Industrial Sociology, Administration Management, Personnel Management & Industrial Relations
- Banking: PM's Razgar Yojana for Educational Unemployed Youth (PMRY) → to start micro-enterprise







- FOREIGN TRADE
- FORESTRY SERVICE
- CIVIL SERVICE / RAILWAY
 SERVICES / POLITICS
- ECONOMISTS
- PSYCHOLOGY
- SOCIAL WORKERS
- ARMY, NAVY & AIR FORCE
- TEACHING
- SPORTS & PHYSICAL EDUCATION

- LIBRARY & INFORMATION
 SCIENCE
- SPECIAL EDUCATORS
- REHABILITATION
- HEALTH FITNESS BEAUTY
- FOREIGN LANGUAGES, CALL
 AGENTS
- PUBLISHING INDUSTRY
- HISTORIANS, ARCHAEOLOGISTS, ARCHIVITS, CURATORS







Career & Course Options after 10TH & Plus 2 FOREIGN TRADE

Courses & Work Area

- Export Processing Zone
- Export Divisions
 - Export Inspection, Export Promotion, Trade Fair Authority
- Indian Institute of Foreign Trade
 - Master's Programme in International Business
 - PG Diploma in International Trade
 - Certificate Course in Export Marketing
- Indian Institute of Packaging
 - PG in Packaging





FORESTRY SERVICE

Courses & Work Area

- IFS Exam
 - B.Sc or B.E
- Officer, Ranger, Guard, Fire Watcher
- Degree in Forestry/ Botany/ Zoology/ Entomology/ Silviculture / Life Science/ Veterinary

Institutes

- Indian Institute of Forest Management
- Directorate of Forest Education





Career & Course Options after 10TH & Plus 2 CIVIL SERVICES / RAILWAY / POLITICS Civil Services

 Responsibilities vary with the seniority of the civil servant. Junior officers begin with probation and move up in the hierarchy.

Personality: *Smart thinking and good analytical skills are needed.*

Custom Services

- Functions of customs and central excise department fall under two categories:
 - 1. Prevention of evasion of customs and excise duties.
 - 2. Evaluation of goods and collection of duties accruing to the government.

Railway Services

 Railway department being one of the largest service in India, has lot of departments – Production, Electrification, Professional, training, computerised systems, etc.

Politics and public life

 Entry into Lok Sabha, Raj Sabha & Local Assembly are within this category

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CIVIL SERVICES - 1

Courses & Work Area

- IAS, IPS, IFS
- Group A: Railway, Audit, Revenue, Posts, Defence Accounts
- Group B: Armed Forces, Delhi Civil, Pondicherry Civil, CBI, Central Secretariat Service (CSS)
- Prelims: Objective Type
 - 1st exam: 2 hours 150 marks (General Studies)
 - 2nd exam: 2 hours 300 marks





CIVIL SERVICE - 2

Courses & Work Area

- Main: Essay Type
 - 1st Exam: Language (NOT USED FOR RANKING)
 - 2nd Exam: English (NOT USED FOR RANKING)
 - 3rd Exam: Essay
 - 4th and 5th Exam: General Studies
 - 6th to 9th Exam: Two Subjects
 - Interview
- Indian Forest Service
- Indian Econ/Statistics Service
- Indian Engineering Service
- Custom Services: U.P.S.C, S.S.C
- Railway Services: Civil & Allied Services Exam of U.P.S.C.





Career & Course Options after 10TH & Plus 2 ECONOMISTS - 1

Introduction

 General economics provide general analysis of decision making where resource constraints are present. Economists working for government and private organizations have structured work schedules.

Personality

• Economists must be good at numerical ability so as to work with figures. They should be analytical as they use economic techniques for analysis. An interest in current affairs is important as well as the ability to assess the implication from an analysis view point.





Career & Course Options after 10TH & Plus 2 ECONOMISTS - 2

Courses & Work Area

- Indian Economic Services Exam of U.P.S.C. → P.G is eligible.
- B.A (Economics), B.A (Rural Economics), B.A (Business Economics), B.A (Econometrics)

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Career & Course Options after 10TH & Plus 2 **PSYCHOLOGY**

Introduction

 Psychologists study human behaviour and mental processes to understand, explain and modify people's behaviour. They study the way a person thinks, feels or behaves

Working Conditions

• Psychologists work under varied conditions. Those who work in academics and research work in an academic setting provided with laboratory.

Personality

• They must have a serious desire to help people understand themselves and others. A basic curiosity is required as well as fascination with the way human mind works.

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





SOCIAL WORKERS

Introduction

• Social and welfare work implies helping people tackle the problems they face in their daily lives.

Working Conditions

• Social work goes on at three major levels. These are the individual level, also known as case work, group work and community or organization work. Social workers do not always work at a desk. The job involves meeting clients, conducting interview, conferencing with other professionals, preparing reports, etc.





Career & Course Options after 10TH & Plus 2 PSYCHOLOGY & SOCIAL WORK

Courses & Work Area

- Personal, Educational, Social, Industrial, Child, Counseling, Mentally retarded, etc
- Doctors, companies (For interview / personnel development / HR Department)
- Clinical, Educational, Counselling, Industrial, Social, Neuro

Institutes

- Diploma in Child Psychology & Family Relations 1 Year Course; For ladies, after graduation.
- Social Workers
 - B.A (Social Work)
 - BSW Child Care, Community Social Work, Medical Social Work





TEACHING

Introduction

• Education is a sector of opportunities.

Working Conditions

 Teachers work under different levels of conveniences. While some schools have well equipped and pleasant classrooms, many government schools work in temporary conditions.

Personality

• This profession requires dedication, perseverance and patience. If you aspire to play a small role in moulding society, as a teacher you can influence the thoughts, personality of children and youth.

VETRY



SPORTS AND PHYSICAL EDUCATION

Introduction

 Sports and physical education are prominently outdoor activities though some games are practised and played in indoor stadia. Practice takes up fixed hours and despite extreme weather conditions it is carried on.

Personality

• Sports persons are energetic, enthusiastic and physically fit people. All professionals in this field must be absolutely committed to the profession and the game.





Career & Course Options after 10TH & Plus 2 LIBRARY AND INFORMATION SCIENCE

Introduction

• Librarians make information available to people. Library work involves three basic functions: User services, technical services and administrative services.

Working Conditions

• Working conditions vary according to the specific job a librarian does.

Personality

• This is not a job of reclusive bookworms. Librarians and information officers should be orderly, have meticulous baits, an enquiring mind, a good memory and plenty of initiative to dig out information.





Career & Course Options after 10TH & Plus 2 SPECIAL EDUCATORS

Introduction

• Special educators work in special schools, well equipped for children with special needs.

Working Conditions

• The job requires considerable standing and movement. The equipments have to be handled with care.

Personality

• Children with special education needs may also have behavioural problems. It may take a long time to win their confidence and build individual relationships. This needs firm but fair handling.





TEACHING - 1

Courses & Work Area

- B.Ed / M.Ed
- Diploma in Child Guidance
- Diploma in School Psychology
- Diploma in Teaching English and Arabic
 - CIEFL (Central Institute of English & Foreign Language), After graduation.
- Sports
 - Sports Authority of India
 - Diploma, B.Ph.Ed.

Institutes

- Regional Institute of Education (Mysore/Ajmer)
 - B.Sc B.Ed (4 Years)





Career & Course Options after 10TH & Plus 2 TEACHING - 2

- Library and Information Science
 - B.Lib
 - M.Lib
- Special Educators
 - Teachers for Mental/Hearing/Visual/Physical Disabled/Impaired
 - National Institute of Mentally Handicapped, Secundarabad
 - B.Sc (Hearing Language)





Career & Course Options after 10TH & Plus 2 REHABILITATION

- B.Sc. Special Education Rehabilitation
- Dip in Teaching Pre-School Young Hearing Impaired Children
- Junior Dip in Teaching the Deaf
- Bachelor in Mobility Science





HEALTH FITNESS BEAUTY

Introduction

• Health centres equipped with fitness gadgets, recreation clubs provide a varied work environment to health and fitness workers.

Personality

• A friendly disposition, meticulous work habits, patience, business acumen, physical fitness and good health are assets for becoming a professional in this sector.





Career & Course Options after 10TH & Plus 2 FOREIGN LANGUAGES, CALL AGENTS

Introduction

 Languages specialists who work as interpreters meet and work with different people from diplomatic circles to tourists, hence the working conditions can be very different.

Working Conditions

• Considerable time may be spent in very formal settings.

Personality

• Linguists must have the aptitude to grasp the use of languages. Verbal ability is nurtured from an early age stage and proficiency comes through correct and regular usage.

Call Agents

 Call centres are voice or web based and either in bound out-bound wherein calls are received from and made to the customer respectively. Another kind of call centre is one which specialises in business processing. Here calls are made from company to company









- Courses : Certificate / Diploma course in Foreign Languages like – German, French, Spanish, Arabic, Russian, Chinese, etc
- Eligibility : Pass in +2.
- Duration : 6 months / 1 year / 2 year
- 4 Cost : Rs.3,000/- (approx)
- Scope :

Language Translators, Interpreters in Multi-National Companies, International Hotels, Airlines, Tourist Destinations.







FOREIGN LANGUAGES

- Scope : Private Tuitions Indians & foreigners, Volunteers in Trade fairs, Teaching in Schools & colleges, etc..
- Further : Diploma, PG Diploma, etc..
 Studies Regular Classes as well as through

correspondence.

Very good part time job for Students





PUBLISHING INDUSTRY

Introduction

 Spacious, open-plan, often air-conditioned office are becoming increasingly usual in all types of publishing. Since typewriters have in most cases been replaced by computer terminals, the noise level has dropped considerably, though on a newspaper in particular, telephone are in constant use.

Personality

• Interest in books and complete involvement for innovative work in publishing is at the core of success of most publishing houses.





Career & Course Options after 10TH & Plus 2 HISTORIANS, ARCHAEOLOGISTS, ARCHIVISTS, CURATORS

Introduction

• Knowing about the past and maintaining is the main concern here.

Working Conditions

• Archival work is sedentary and quiet. It involves attention to detail meticulousness and can be tedious. The job often is done alone and at time with a couple of assistants.

Personality

• They all enjoy knowledge for its own sake and work for passing it on to others. They have deep interest in the past and are curious to find out more than the obvious.





VARIOUS OTHER OPTIONS - 1

Courses & Work Area

- History, Archaeology, Archive Curators (Organize Museum)
 - Post graduates
 - Master in Archaeology & Heritage Management
 - Master in Conservation, Preservation & Heritage Management
 - Diploma in Archives
- Anthropology
 - Study of Humanity
 - Physical, Socio-cultural, Archaeology
- Geography
 - Cartography data for maps
 - GIS (Geographic Information System)
 - M.Sc (Cartography) University of Madras
 - Dip (Cartography) Aligarh Muslim University



VETRY



VARIOUS OTHER OPTIONS - 2

Courses & Work Area

- Foreign Language
 - Interpreter/Translator
 - CIEFL (Central Institute of English & Foreign Language), Hyderabad/Lucknow/Shilong
 - Dip/Bachelor/Certificate
- Call Centre Agents Training
 - Mink Bank, Delhi
- Medical Transcriptionists Training
 - Regal Info Tech, Delhi
- Airlines/Airports Job
- Book Publishing
 - National Book Trust, Delhi 4 Weeks Training
 - Mahatma Gandhi University M.Sc in Printing & Publishing

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VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS



Various Other Options - 3

- INDIAN INSTITUTES
 - Planning and Management
 - Foreign Trade
 - Personal Management
 - Mass Communication
 - Information Tech (IIIT), Hyderabad
 - National Council of Vocational Training
 - National Trade Test Certificate





Career & Course Options after 10TH & Plus 2 Various Other Options - 4

- HINDI LANGUAGE
 - Translate government / official documents.
 - Newspapers / journals / Radio / TV
 - Book translators: Staff selection commission conducts exam.

UNION PUBLIC SERVICE COMMISSION

- National Defence Academy Exam
- Railway Apprenticeship
- Bank Probationary Officers Exam
- Staff Selection Committee
 - Stenographer
 - Clerks grade exam





CLUSTER-6

• GOVERNMENT JOBS, SERVICE EXAMINATIONS AND OTHER JOB OPPORTUNITIES

VELAMMAL EMPLOYMENT TRAINING & RESEARCH FOR YOUNGSTERS





DEFENCE SERVICES - 2

- Army/Navy/Air Force
 - Infantry, Armoured Corps, Artillery, Technical Branch, Medical Branch
 - Postal/Education/Judge/...
- National Defence Academy \rightarrow UPSC Exam (Twice a year)
- Combined Defence Services Exam → UPSC
- Service Selection Board (SSB)
- Paramilitary Services: CRPF, BSF, ITBP (Indo-Tibetian), CISF (Central Industrial Security Force)
- Physical Efficiency Test (PET) is a must
- Railway PF, ...





DEFENCE SERVICES - 3

- Technical or commercial services
 - Bachelors or diploma or +2
- Coast Guard
 - General duty branch \rightarrow Command ships
 - Pilot/Navigator branch
 - Engineering branch
 - Electrical branch
- Border Roads
- Intelligence Services
 - CBI (Selection via SSC), IB (No power to investigate, but analysis information), RAW (Research).





Career & Course Options after 10TH & Plus 2 ARMY, NAVY & AIR FORCE

Courses & Work Area

- Technology/Engineering
- Management / Administration
- Medical
- Combined Defence Service Exam of UPSC
- Detectives
 - CBI (Central Bureau of Investigation), RAW (Research & Analysis Wing)
 - National Institute of Private Investigation, Delhi One Year Diploma
 - Global Detective Agency, Chennai



VETRY



SELF EMPLOYMENT