

KNOW THE CAREER WORLD

Transport Distribution and Logistics Careers

By Dr Charles Mugaviri

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Purposeful Career Planning

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DEDICATION

I dedicate this book to the millions of teenagers in and from the African continent. May your lives be consumed by a deep desire to build leadership legacies that will unlock Africa's potential and greatness. Africa is too rich to be poor. You were born for a purpose. You were born to leave Africa a better continent than you found it. Don't disappoint and don't settle for less.

Acknowledgements

No task of this magnitude can ever be achieved without divine wisdom and knowledge. I would like to first and foremost acknowledge the LORD Almighty for granting me the love to inspire and empower my generation.

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I would like to also acknowledge the inspiration and motivation that I have received over the years from the legacy building individuals that I have worked with in the Church community, at the University of Zimbabwe and at LASOF Leadership Institute. Our journey together of inspiring and empowering thousands of learners to make purposeful career choices and become character based leaders ignited the desire and vision for this career guidance series.

Each learner, parent, school, company, government department, Church or NGO who came through our career and leadership programs in Zimbabwe and the wider African region has inspired us to continue the journey and they deserve special acknowledgement. You each made me believe this was a worthwhile cause.

Special acknowledgement goes to the Joshua Nkomo Scholarship Fund. The opportunity you granted us to develop the career and leadership capacity of your scholarship beneficiaries (the Joshualites) over the last ten years has been truly a mutually enriching experience which went a long way in inspiring me to write these books.

Introduction

The career world is diverse and dynamic. Before you make a career choice, it is important that you have an appreciation of the width and depth of the career world in terms of options that are available.

A career is a chosen pursuit, a profession or occupation requiring special training, followed as one's lifework. It is a path or course one chooses to follow to earn a living. It is the progression of one's working life or one's professional achievements, for instance a soldier or a teacher. A career is a course of successive situations that make up a person's occupation. A career is therefore doing what one does as a permanent occupation.

The term career is derived from the Latin word *carrera*, which means race. The verb was first attested in 1594 from the notion of a horse "passing a career" on the jousting field. A career is usually considered to pertain to remunerative work and formal education. One can have a sporting career or a musical career without being a professional athlete or musician, but most frequently "career" in the 20th century referenced the series of jobs or positions by which one earned one's money.

Career Cluster is a broad group of related career majors within an occupational interest area. They represent groupings of occupations and industries based on shared traits. There are sixteen (16) career clusters that cover all occupations.

This book focuses on the Agriculture, Food and Natural Resources career cluster.

Perspectives on career planning

One of the most important choices you have to make in your life time is selecting a career. This choice has far reaching implications and it has to be an informed choice. The quality of information you have determines the quality of decisions you make. This book is a tool designed to empower you to make an informed career choice that you won't regret in the future. In this introduction, we are going to share some perspectives that you need to take into account as you make use of this book.

Purpose perspective to career planning

Take a moment and think of the best footballer in your nation. Think also about your favourite local musician. Can you imagine the two of them switching places? How do you think the footballer would perform on the music stage and the musician in the football field?

We were all created and designed to fulfil a specific purpose in life. None of us was created to do everything. You have a life purpose that will bring out your best. That purpose is your life assignment. You need to choose a career that is aligned to that assignment. In fact your career should be an expression of that assignment. The platforms for expressing your purpose may vary from one season to another but the assignment itself does not change. Its expressions may also change but your purpose will remain a constant factor in life.

Many professionals today are not fulfilled and satisfied with their careers mainly because of a lack of purpose perspective in the manner they selected their careers. Your career should be an expression of who you are and it must be an opportunity for you to utilize your gifts, talents, passions and other latent abilities. This is why you must first know yourself well before you make your career choice. This question of self-knowledge is fully addressed in the book “Know Yourself: A Foundation for Career and Character Development” which is the first book in the Career Education series.

Dynamic perspective to career planning

You also need to appreciate the career world is so dynamic and ever changing. Did you know for example, that the top ten jobs in the world in 2010 did not exist in 2004? You need to be aware that some of the jobs that are on demand today may not be relevant in the future. Can you imagine what is happening to someone who invested all their time in developing a career that has to do with manufacturing or repairing manual type writers?

The dynamism of the career world means you need to be prepared to continuously develop new knowledge and skills that are relevant to the ever changing career world. Multi skilling is also important as you will have to adapt to the changing socio economic and political environment.

Please note the career listing in this book is not exhaustive. There are other careers that are not mentioned in this book under this career cluster. The ones listed here are only samples.

Local perspective to career planning

When making a career choice, invest effort in developing an understanding of the economic environment in your country as it has a direct bearing on the labour markets. You don't want to spend years developing knowledge and skills in an area where there are limited or no employment prospects. You need to have some insights in terms of employment trends in your local job market.

For example, a country like Zimbabwe did not have diamond mining until a few years ago. Today, however, diamond mining is redefining the economic terrain in ways that have far reaching implications in terms of new career opportunities. Diamond cutting, for example, is a new career pathway that had never been explored before but that is becoming a major area of employment opportunity as Zimbabwe has the fourth largest diamond deposits in the world. We have other examples of countries in countries that have discovered oil deposits like Ghana. Such developments have far reaching economic implications that are reflected in new career opportunities.

Global perspective to career planning

We encourage all learning to also develop knowledge and an appreciation of regional and global economic and employment trends. There is a lot of migration of skills across nations and continents. Developments in other parts of the world will have some bearing on developments in your nation as well. It is wise to have a global perspective even when you are deciding to pursue your career locally.

In this book, we have looked at the Career world from both an African and global perspective. There will be many careers you may see that you have not heard about before. Some of them may be in your country but you have not been aware of it. Other listed careers may not be found in your country. This broad view should help you to appreciate local, regional and global trends in terms of the career world.

Entrepreneurial perspective to career planning

The rate of unemployment has been growing across the nations of Africa and the world. There is need to rethink the traditional approach to career planning and employment. It is important to observe that in most African nations the informal or Small to Medium Enterprises (SMEs) sector is growing rapidly. Many people are creating jobs for themselves and others instead of seeking and waiting for non-existent employment opportunities.

As you plan your career, you need an entrepreneurial perspective where you see yourself as a prospective employer not just an employee.

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Transportation, Distribution and Logistics Career Pathways and Sample Careers

Focus: Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Cluster Summary: Careers in the Transportation, Distribution & Logistics cluster move people, material and goods safely. People in these occupations can work with cars, busses, trucks, trains, boats and airplanes. They may work in the air, on the ocean or on highways moving things from one place to another. You can be a taxi driver, engineer, air traffic controller or mechanic and be in this career cluster.

Career Pathways	Sample Careers
<p>Transportation Operations</p>	<p>Air/Space Transportation:</p> <ul style="list-style-type: none"> •Transportation Managers (Air) •Commercial Pilots •Flight Engineers •Flight Attendants •Dispatchers (Air) •Traffic Managers •Air traffic Controllers •Aircraft Cargo Handling Supervisors •Airfield Operations Specialists <p>Rail Transportation:</p> <ul style="list-style-type: none"> •Transportation Managers (Rail) •Dispatchers (Rail) •Traffic Managers •Locomotive Engineers •Locomotive Firers •Railyard Conductors and Yardmasters •Railroad Brake, Signal and Switch Operators •Railyard Engineers, Dinkey Operators, and Hostlers <p>Water Transportation:</p> <ul style="list-style-type: none"> •Transportation Managers (Water) •Dispatchers (Water) •Traffic Managers •Captains •Mates •Pilots of Water Vessels •Sailors and Marine Oilers •Able Seamen •Ordinary Seamen •Ship and Boat

	<p>Captains •Ship Engineers •Bridge and Lock Tenders</p> <p>Road Transportation:</p> <ul style="list-style-type: none"> •Transportation managers (Road) •Dispatchers (Truck/Bus/Taxi) •Traffic Managers •Truck Drivers (Tractor-Trailer) •Truck Drivers (Light or Delivery Services) •Bus Drivers (Transit and Intercity) •School Bus Drivers •Taxi Drivers and Chauffeurs <p>Transit Systems:</p> <ul style="list-style-type: none"> •Transportation Managers (Mass Transit) •Dispatchers (Bus) •Traffic Managers •Dispatchers (Rail) •Traffic Managers •Bus Drivers (Transit and Intercity) •Subway and Streetcar Operators
Logistics Planning and Management Services	<ul style="list-style-type: none"> •Logisticians •Logistics Managers •Logistics Engineers •Logistics Analysts •Logistics Consultants •International Logistics Specialists.
Warehousing and Distribution Centre Operations	<ul style="list-style-type: none"> •Warehouse Managers •Storage and Distribution Managers •Industrial and Packaging Engineers •Traffic, Shipping and Receiving Clerks •Production, Planning, Expediting Clerks •First-line Supervisors or Managers of Helpers •Labourers, and Material Movers (Hand) •First-line Supervisors or Managers of Transportation and Material (Moving Machine and Vehicle Operators) •Labourers and Freight, Stock and Material Movers (Hand) •Car, Truck and Ship Loaders •Packers and Packagers-hand.
Facility and Mobile Equipment Maintenance	<p>Facility: •Facility Maintenance Managers and Engineers •Industrial Equipment Mechanics •Industrial Electricians, •Electrical or Electronic Technicians</p> <p>Mobile Equipment: General</p> <ul style="list-style-type: none"> •Mobile Equipment Maintenance Managers •Electrical and Electronic Installers and Repairers (Transportation Equipment) •Mobile Heavy Equipment Mechanics <p>Mobile Equipment: Air/Space</p> <ul style="list-style-type: none"> •Aerospace Engineering and Operations Technicians •Aircraft Mechanics and Service Technicians •Airframe Mechanics •Power plant Mechanics •Aircraft Engine Specialists •Avionics

	<p>Technicians</p> <p>Mobile Equipment: Water</p> <ul style="list-style-type: none"> •Ship Mechanics and Repairers •Motorboat Mechanics •Automotive or Truck Mechanics and Body Repairers <p>Mobile Equipment: Rail</p> <ul style="list-style-type: none"> •Rail Car Repairers •Signal and Track Switch Repairers •Rail Locomotive Mechanics and Repairers <p>Mobile Equipment: Road</p> <ul style="list-style-type: none"> •Electronic Equipment Installers and Repairers (Motor Vehicle) •Automotive Body and Related Repairers •Automotive Service Technicians and Mechanics •Automotive Master Mechanics •Automotive Specialty Technicians •Bus and Truck Mechanics and Diesel Engine Specialists •Motorcycle Mechanics •Bicycle Repairers.
<p>Transportation Systems/ Infrastructure Planning, Management, and Regulation</p>	<p>General</p> <ul style="list-style-type: none"> •Intermodal-Urban and Regional Planners •Civil Engineers •Engineering Technicians •Surveying and Mapping Technicians •Government Service Executives •Environmental Compliance Inspectors <p>Air/Space</p> <ul style="list-style-type: none"> •Air Traffic Controllers •Aviation Inspectors •Road Traffic Engineers •Traffic Technicians •Motor Vehicle Inspectors •Freight Inspectors •Rail - Railroad Inspectors <p>Water</p> <ul style="list-style-type: none"> •Marine Cargo Inspectors •Vessel Traffic Control Specialists •Transit-Public Transportation Inspectors •Regulators •Inspectors and •Transportation agency jobs
<p>Health, Safety and Environmental Management</p>	<ul style="list-style-type: none"> •Health and Safety Managers •Industrial Health and Safety Engineers •Environmental Scientists and Specialists •Environmental Science and Protection Technicians •Environmental Managers and

	Engineers •Environmental Compliance Inspectors •Safety Analysts
Sales and Service	•Marketing Managers •Sales Managers •Sales Representatives of Transportation or Logistics Services •Reservation, Travel and Transportation Agents •Cargo and Freight Agents •Customer Service Managers •Cashiers, Counter and Rental clerks.

Career 1: Aeronautical Engineering

Aeronautical engineering can be regarded as another branch of mechanical engineering in aviation, dealing with internal combustion engines, fuel, air-conditioning and heating, strength of materials and hydraulics.

Aeronautical engineers design, plan, develop, manufacture and test aircraft, missiles, satellites and other relevant aeronautical products and systems. They usually work as part of a team with each team member representing a different area of specialization.

Aeronautical engineers may specialize in one of the following fields:

Structural Analysis: the analysis of static and dynamic loads of the airframe and the choice of construction materials and production methods to be used.

Aerodynamics: the study of airflow over an aircraft to determine its configuration, stability, control and performance and power requirements. This is often done with the aid of scale models, which are tested in a wind tunnel.

Propulsion: this involves flow mechanics, thermo-dynamics, gas dynamics and strength of materials. It entails the choice of appropriate vehicle engines. Engineers in this field of study occupy themselves with the design, development, production, assembly and testing of aircraft engines that must meet certain power and performance requirements.

Systems: this involves the definition, simulation, integration and evaluation of all subsystems of an aircraft / missile to ensure that the system meets all requirements and functions well. A systems engineer or project manager is responsible for integrating all of these fields.

Manufacture and Production: this field involves ensuring that the product is of a high quality, with the application of rigid standards and stringent control throughout the production process.

Avionics: this field involves aspects such as flight instrumentation, radar, computers, navigation equipment, communication systems and sensors (height and speed).

Servo- and Power-Systems: the use of hydraulic and electrical systems for the stability and control of aircraft and missiles.

Certification: this involves systematic flight tests to prove that an aircraft is airworthy and performs as required.

Aerospace engineers design and develop aircraft, spacecraft, missiles, aerospace systems and components, and develop and conduct tests and computer simulations of aerospace vehicles, systems and components, as well as prepare specifications for materials and processes to be used in aerospace manufacturing, maintenance, repair or modification. They also supervise and coordinate the manufacturing, assembly modification, repair and overhaul of aircraft and spacecraft. They coordinate ground and flight tests of air and spacecraft, and they develop operational specifications, maintenance schedules and manuals for operators.

They also develop the technical phases of logistical and operational support for aerospace vehicles and systems, and they investigate and report on structural or other component or system failures, accidents or incidents and prepare recommendations for corrective action.

Aeronautical engineers and aerospace engineers generally work indoors in offices or research laboratories. The actual work setting depends on the type, size, location and financial resources of the employer and the skill, experience and area of specialization of the engineer.

Engineering graduates usually begin work under the supervision of experienced engineers and are gradually given more responsibilities as they gain experience. Some engineers with experience and additional education move into administration or management. Many high-level executives in industry began their careers in engineering.

Aeronautical or Aerospace Engineering Technician

Aeronautical or aerospace engineering technicians work with engineers and scientists to design and produce aircraft, missiles and spacecraft. They help engineers to prepare layouts and models of structures, control systems and equipment installations by gathering information, making calculations and performing laboratory tests. They prepare or check drawings for technical accuracy, practicability and economy.

Some aeronautical engineering technicians work as representatives for manufacturers and serve as a link between the company and customers, which would entail some travelling. Others prepare technical information for manuals, bulletins, catalogues and other literature.

Aeronautical or Aerospace Engineering Technologist

Aeronautical or aerospace engineering technologists assist aeronautical and aerospace engineers in designing, manufacturing and testing aircraft and spacecraft. From the creation of a model to the creation of an actual life-size aircraft or spacecraft, the involvement of an aeronautical or aerospace engineering technologist is of vital importance, since the aerodynamics of the craft has to be tested thoroughly. The safety of the aircraft or spacecraft is thoroughly checked, after which the technologist recommends any changes and modifications considered necessary to the

engineers.

Aeronautical and aerospace engineering technologists also upgrade and maintain the safety features of aircraft already in use. Before a rudder flight, a technologist ensures that all features, planned and prepared by the engineers, have in fact been implemented.

Thus, aeronautical and aerospace engineering technologists have to be generalists in this field while being experts in all aspects of aerodynamics and aircraft safety. They work both indoors in offices, using computers, with computer-aided design and other software programmes and computerized blue-prints, as well as in hangars and sometimes outdoors (aerodromes or test sites).

Some fulfilling and satisfying aspects of this career

- challenges and variety of work
- opportunity to specialize in an area of one's interest
- the possibility of making advances that will help people in general
- solving difficult problems

Some demanding and challenging aspects of this career

- the long preparation necessary before you can be registered as a professional engineer
- frustration when not being able to solve a problem
- working long hours to complete a project
- having to continue your education throughout your career to keep up with the latest technological advances in your field

Purpose Orientation

An aeronautical engineer should:

- be curious and creative;
- have above average ability in Mathematics and Physical Science;
- good communication skills, both verbal and written
- be able to work well with others and have leadership qualities;
- be responsible;
- perfectionist - errors can easily result in the loss of human lives

School Subjects

Advanced Level Certificate meeting diploma and degree requirements

Each University or College will have its own minimum entry requirements.

Compulsory Subjects: Mathematics, Physical Sciences

Recommended Subjects: Information Technology, Engineering Graphics and Design

Training

Degree: BSc (Eng) with aeronautical subjects

Employer

- Department of Transport - Civil Aviation Division
- commercial and private airlines
- National Airlines (where applicable)
- Air force and Defence Forces
- self-employment - a qualified aeronautical engineer, with the necessary experience in this field, can work as a consultant for one or more of the above-mentioned companies

Career 2: Aeronautical Information Service Clerks

Aeronautical information service clerks are responsible for the timely flow of aeronautical information necessary for the safety and efficiency of national and international aviation. They provide: current data and information, entailing the distribution of current aeronautical data and information that may influence flight operations; documented information, which involves the collating, processing, editing and distribution of documented information relating to flight operations; and charting data and information, which can involve conducting surveys of activities that influence flight operations.

Most of the work is computer driven and involves shift-work, as services have to be available on a 24-hour basis.

Some fulfilling and satisfying aspects of this career

- providing a valuable service
- gathering information

Some demanding and challenging aspects of this career

- shift-work
- frustrations with computer work

Purpose Orientation

An aeronautical information service clerk should:

- be diligent and accurate;
- have computer skills;
- be respectful and courteous;
- be polite and friendly;
- be self-controlled and level-headed;
- instil confidence when conveying information;
- be willing to work shifts.

School Subjects

Advanced Level Certificate

Compulsory Subjects: Mathematics, English

Recommended Subjects: Geography, Information Technology

Training

In-service training is undertaken, which is practical and under supervision, to gain experience, as

well as different short courses.

Employer

- Airports
- Air Force

Career 3: An Air Quality Control Specialist

An air quality control specialist is someone who is trained to research, inspect and investigate levels of air pollution, and to take the necessary steps to ensure good air quality to address public health concerns.

An air quality control specialist performs duties such as the sampling and testing of air quality, investigating public complaints and working with individuals and families to address indoor air pollution issues such as toxic mould and particulate matter in the air.

Air quality control specialists may work in indoor environments to determine the air quality in homes, businesses and government offices. They can work for companies that serve private citizens, or for government agencies that monitor conditions in the work place.

Those who work outdoors typically work for government agencies to monitor compliance with air quality regulations. They may use specialised equipment to measure air pollution, determine whether businesses are in compliance with local, municipal and government air quality regulations, and issue warnings to companies that do not comply.

Although air pollution control specialists can be found in all parts of the country, most work in urban areas where industry and traffic are heaviest.

An air quality control specialist plays an important part in ensuring healthy clean air to minimise public health risks. Air pollution can also have detrimental effects on natural ecology and wildlife. Air quality control specialists therefore play a key role in evaluating and reducing the impact of air pollution on people and ecological systems.

Some fulfilling and satisfying aspects of this career

- playing an important role in preventing health problems that result from air pollution
- providing a useful service
- knowing that your work protects people's health

Some demanding and challenging aspects of this career

- being unable to solve some problems
- dealing with uncooperative individuals or companies

Purpose Orientation

An Air quality control specialist should:

- be responsible, organised and dedicated
- be able to communicate effectively
- have good hand-eye coordination
- be ethical, reliable and trustworthy

School Subjects

Advanced Level Certificate meeting degree requirements for a degree course, where appropriate.

Each University or College has its own entry requirements.

Compulsory Subjects: Mathematics, Physical Sciences

Recommended Subjects: Life Sciences

Training

Jobs in air quality typically require a bachelor's degree in engineering, physical sciences, environmental science or related areas. On-the-job training is sometimes available for those who have not completed undergraduate studies in one of these disciplines. In many cases, hands-on experience in air quality testing and control can substitute for educational requirements for jobs in both the private and public sector.

Employer

- government and state departments
- laboratories, research institutions
- tertiary institutions such as universities
- non-profit organisations engaged in combating or preventing pollution
- self-employed, as a consultant

Career 4: Air Traffic Controllers

Air traffic controllers direct the safe and orderly movement of aircraft while they are flying, landing, taking off and taxiing. The most important aspect of air traffic controllers' work is to keep airport traffic flowing smoothly, safely and efficiently. They provide pilots with instructions based on information received from equipment (such as radar), other controllers, the weather bureau, other airline pilots and other sources.

Air traffic controllers: receive information about flights from flight plans, pilot reports, radar and observations; direct aircraft to manage aircraft traffic flows so that accidents are avoided; advise pilots on weather conditions, the status of facilities, airports and other services; give pilots permission to take off, land and change altitude and direction.

They also give airport workers permission to move around on the tarmac and runway; monitor aircraft in the air on a radar and look for possible conflicts; check equipment used for navigation; communicate by telephone, radio and satellite communication systems with pilots, air traffic controllers and other airport professionals; alert airport fire crew and rescue services in cases of emergency; and write reports on incidents.

In airport control, air traffic controllers are concerned with all aircraft moving on the surface of the airport and all aircraft taking off and landing during good weather conditions. In approach control, air traffic controllers give instructions, particularly during bad weather conditions, to incoming aircraft until the runway is in sight and to departing aircraft until level flight is reached. In airway control, instructions to pilots ensure that safe distances between aircraft are maintained.

Air traffic controllers need to know about flight planning, weather, navigation and aircraft performance. They also need to know civil aviation laws, safety rules, emergency procedures, technical flying terms and the different methods used to separate aircraft in the air.

Equipment used by air traffic controllers includes: radar screens; electronic equipment; computers; radios and telephones to contact pilots and other airport staff. Experience as a pilot can be very helpful for air traffic controllers, as can aviation and navigation experience. Air traffic controllers spend a lot of time dealing with pilots and other air traffic controllers, so any work involving people is useful. .

Some fulfilling and satisfying aspects of this career

- having a very responsible job
- successfully meeting challenging emergencies when they occur

- earning well, with good fringe benefits
- good advancement opportunities

Some demanding and challenging aspects of this career

- working shifts
- having to pass a yearly physical examination
- the work can be very stressful at times

Purpose Orientation

An air-traffic controller should:

- have skill in interpreting information and making calculations
- have ability to make quick, accurate decisions in a busy working environment
- have ability to think quickly and remain calm in all situations
- have good organizational skills and ability to prioritize and work well under pressure
- be emotionally and mentally mature and stable
- be responsible, conscientious, adaptable and self-confident
- have audible, clear voice and a good telephone manner
- have good hearing and good eyesight (with or without glasses)
- have ability to look at and scan computers, radar presentations and flight plans continuously for long periods of time
- have good health and able to pass a medical examination every year

School Subjects

Advanced School Certificate

Compulsory Subjects: Mathematics

Recommended Subjects: Physical Sciences, Geography

Training

Air traffic controllers receive a combination of theory and practical training before they qualify. Once qualified, they receive on-going training.

The Department of Transport and the Defence Forces train air traffic controllers in their employ.

Theoretical training is given together with practical training at major airports throughout each country, or at air bases in the case of the Defence Force.

Air traffic controllers (in all specializations) must obtain a valid traffic controller's licence. In addition, controllers must obtain a facility rating for the type of facility to which they are assigned. Air traffic controllers must take and pass yearly physical examinations to re-qualify for

their positions.

Employer

- Departments of Transport
- Air Forces
- Various airports in each African country

Career 5: Aircraft Avionician

Aircraft avionicians are also known as aircraft electronicians and aircraft instrument mechanics.

Aircraft avionicians maintain and repair mechanical, electrical, electronic, and digital instruments on aircraft. The trade combines the work of the aircraft electrician, aircraft instrument mechanic, aircraft radartrician and radiotrician and electronics mechanic. An air traffic avionician works in a specialized field that focuses on keeping the complex network of air traffic and air navigation equipment in peak condition.

Aircraft instrument mechanics / electricians / electronics mechanics: use measuring and testing equipment for the tracing of circuits and for measuring circuit values; maintain and repair precision measuring instruments, pressure switches, various types of gauges, transmitters, indicators, compasses, altimeters, engine power and control instruments. They repair oxygen equipment, gyroscopic instruments, autopilot components and air-conditioning systems. They join metals, apply cleansing agents and treat metals against rust and fatigue.

Aircraft avionicians repair and maintain certain aircraft parts such as instrument panels, pressure sensors, navigating systems and instrument landing systems.

Aircraft Radartrician and Radiotrician

Aircraft radartricians and radiotricians install, test, repair and maintain radar and radio equipment for aircraft.

Aircraft radartricians and radiotricians use components and materials such as resistors, capacitors, inductors, transformers, switches, generators, and insulators. They construct and use circuits such as rectifiers, amplifiers and frequency modulators. They mount, connect and tune various antenna systems. They use testing equipment and measuring instruments to trace faults and they wire all the electrical equipment in an aircraft.

Aircraft radartricians and radiotricians check, repair and test: radio and electronic equipment; computing equipment; communication systems; radar and radio navigational equipment and air traffic control equipment.

Aircraft Mechanic

Aircraft mechanics, also known as aviation mechanics or aviation mechanics, have the skills and knowledge required to carry out maintenance and repair of aircraft engines and structures such as airframes, flying controls, retractable undercarriages, propellers, hydraulic and

pneumatic systems.

Aircraft mechanics carry out the following functions: dismantle, inspect and reassemble engines; overhaul entire engine operating accessories such as fuel pumps, injection systems, turbochargers, etc; put the engine in a test rig to conduct a test run; and refit engines to their airframes.

Aircraft Structures Worker

Aircraft structures workers manufacture and maintain airframes and engine components and parts.

Aircraft structures workers mark and cut sheet metal according to engineering drawings. Various factors such as the metallic properties of the metal must always be taken into account. Shapes are obtained by bending the sheet metal into the desired form and by joining components together using soldering, brazing, welding, riveting or bonding techniques. They also shape and fit pipes to aircraft. They have to treat all metals to protect them from corrosion. Safety precautions have to be strictly adhered to.

Aircraft Trimmer

Aircraft trimmers have the responsibility of maintaining the high standards of an aircraft cabin interior, in accordance with laid-down specifications, to ensure passenger comfort and safety.

Aircraft trimmers carry out the following: perform scheduled maintenance; make repairs; carry out inspections on aircraft interior-related components such as: fabric covered panels; carpets and curtains; cockpit and cabin seat covers; safety belts in the aircraft cabin; cargo webbing nets; aircraft insulation blankets.

Survival equipment, such as various slide rafts and life vests used on aircraft, is regularly serviced and if necessary, repaired to ensure the safety of the passengers and crew. All procedures applied must be accurately documented.

Aircraft Turner and Machinist

Aircraft turners and machinists perform maintenance work on aircraft parts and components by applying turning, milling, grinding, and jig-boring skills. In this occupation a person must be able to manufacture parts from various types of special aircraft materials.

Aviation turners and machinists must adhere to all the prescribed rules and regulations laid down by manufacturing companies and vendors. All machining processes must be documented. All work done is subjected to comprehensive inspection to meet safety standards.

Some fulfilling and satisfying aspects of this career

- having a responsible job
- meeting challenging opportunities
- working with your hands

Some demanding and challenging aspects of this career

- need for great accuracy in their work
- demanding mentally and physically

Purpose Orientation

All the above should have:

- mechanical interest
- manual dexterity
- ability to think clearly and make quick decisions
- able to work accurately under pressure
- neat, orderly work habits
- able to maintain consistently high standard of work
- good health and physical fitness

School Subjects

Ordinary Level Certificate

Compulsory Subjects: Mathematics

Recommended Subjects: Physical Sciences

Training

Each country has some training arrangements

In South Africa for example, to train as an Avionician (Air Traffic), one first needs to complete a National Diploma in Electronic Engineering at a university of technology and then must apply for a bursary at the Air Traffic & Navigation Services Company (ATNS) at the Johannesburg International Airport.

Employer

- Aircraft manufacturing or maintenance companies
- National Air Forces
- Commercial and private airlines
- Department of Transport

Career 6: Airport Managers

Airport managers plan, direct and coordinate all activities concerning the maintenance of airport facilities and the operation of airports in accordance with government regulations. They are also responsible for the management of personnel. At a large international airport, management tasks are often split between different managers, each with specific tasks or sections of the airport.

Airport managers are responsible for putting procedures in place to deal with aircraft accidents and other emergencies; the regular inspection of runways, buildings and beacons, as well as lighting, automotive and construction equipment and other airport facilities. They ensure the coordination of repair and maintenance workers. They guide staff, for example those investigating violations of air and ground traffic regulations and those initiating disciplinary action.

Airport managers are responsible for preparing annual budgets, which entails reviewing proposals for improvements to facilities and estimating increases in the volume of air traffic.

Some fulfilling and satisfying aspects of this career

- variety of work
- dealing with people
- being active rather than always sedentary

Some demanding and challenging aspects of this career

- juggling finances to ensure good maintenance and improvements
- dealing with labour disputes and other management crises

Purpose Orientation

Airport Managers should have:

- management ability, including understanding financial matters
- ability to deal with people at all levels
- understand air transport and other forms of transport that centre on an airport

School Subjects

Advanced Level Certificate meeting diploma and degree requirements

Each University or College will have its own minimum entry requirements.

Compulsory Subjects: None

Recommended Subjects: Mathematics, Economics

Training

Airport companies offer in-service training courses for their own staff. However, any degree would be advantageous, such as BAdmin or MBA offered by most universities. Diplomas such as CIS and diplomas in accountancy and personnel management could be useful.

Employer

- Department of Transport
- Privately owned airports

Career 7: Bus Driver

Bus drivers convey passengers by bus on specified routes according to specified time schedules.

There are a variety of responsibilities involved in being a bus driver. Before starting trips, drivers are responsible for inspecting their vehicle to ensure that they are operating properly. At different bus stops drivers have to receive bus fares or proof that people may travel free of charge e.g. pensioners.

During each trip the driver is responsible for the safety of the passengers and the vehicle. They must drive cautiously and obey all the road traffic rules. They are also expected to be friendly and helpful. At the end of the trip a waybill must be completed.

Bus drivers attached to touring or travel companies take people on bus tours throughout the country. They may sometimes act as tour guides.

Some fulfilling and satisfying aspects of this career

- working with people
- not being restricted to an office environment
- coach drivers for touring companies meet interesting people from other parts of the world

Some demanding and challenging aspects of this career

- stressful whilst driving in heavy traffic
- driving in adverse weather conditions
- working shifts, weekends, evenings or holidays
- working under pressure to meet timetables
- concentration for long periods of time
- responsibility for ensuring safety of passengers

Purpose Orientation

A bus driver should:

- be in possession of a valid bus driver's license
- be courteous, tactful and patient
- get along with others
- work well under pressure
- remain calm during emergencies
- work well without supervision
- be emotionally stable
- have good eyesight

- have good health and stamina

School Subjects

Ordinary Level Certificate.

Employers prefer higher educational qualifications.

Compulsory Subjects: None

Recommended Subjects: None

Training

Candidates receive in-service training.

Advanced driving courses are offered at various centres and driving schools in different African countries.

Employer

- Municipalities

- Travel companies

- Private firms

Career 8: Cabin Attendant

Cabin attendants' (male or female) first responsibility is the safety of airline passengers from the time they board the aircraft until they disembark at their destination. Male cabin attendants used to be called airline stewards and female cabin attendants used to be called airhostesses.

Cabin attendants usually report for duty an hour and a quarter before each flight. They are required to attend the captain's pre-flight briefing and are advised about expected weather conditions, special passenger problems and other matters.

They see to it that the passenger cabin is in order, that supplies of food, beverages, blankets and reading material are adequate and that first aid kits and other emergency equipment are aboard and in working order.

Cabin attendants act as the airline's hosts to the passengers and ensure their comfort and enjoyment of the journey. They welcome passengers, check their tickets and assist them in finding their seats and storing their coats and carry-on luggage. They assist passengers with special needs, answer questions and reassure nervous passengers.

Usually senior cabin attendants demonstrate the use of safety equipment and make announcements in regard to in-flight instructions and give general information over the loudspeaker system to passengers. Assisting passengers in the rare event of an emergency is one of the most important functions of cabin attendants.

During the flight they provide passengers with meals, cocktails and refreshments, hand out reading material, pillows and blankets and administer first aid to passengers when necessary. In the air, they answer questions about the flight and help care for small children and elderly persons or persons with disabilities. After landing they assist passengers to leave the airplane and thank them for making use of the services of the airline.

The working hours of cabin attendants are very irregular and the work can be strenuous and tiring. They work an average of 110 hours per month on domestic flights and 90 hours on international flights. Annual free passes by air or rail as well as reduced tariffs on overseas flights are part of the fringe benefits.

Competition for the position of cabin attendant is expected to remain very keen since the number of applicants greatly exceeds the number of vacancies. Cabin attendants sign a two-year contract of service. A cabin attendant can progress to cabin controller and thereafter to senior cabin controller, co-ordinator and training co-ordinator.

Some fulfilling and satisfying aspects of this career

- meeting and talking to a variety of people
- the opportunity to travel extensively while working
- generous travel concessions for vacation purposes
- consecutive days free after each long flight
- meal allowances and allowances for out-of-pocket expenses while away from one's home base

Some demanding and challenging aspects of this career

- working irregular hours
- working nights, weekends and holidays
- dealing with demanding, critical or unpleasant passengers

Purpose Orientation

A cabin attendant should:

- have a neat and attractive appearance and a clear complexion
- have emotional stability, maturity and high moral character
- have a charming personality and be attractive
- relate well to all kinds of people and able to deal comfortably with strangers
- be poised, tactful and resourceful
- have good health
- be able to swim
- enjoy travelling
- relate well to all kinds of people
- be spontaneous, friendly and charming personality
- be fully bilingual and knowledge of foreign languages would be an advantage

School Subjects

Advanced School Certificate.

Compulsory Subjects: None

Recommended Subjects: Languages, Accountancy

Training

Each national airline offers practical and theoretical training. The 6-month course covers: passenger handling, reservations, emergency procedures, first aid, and catering.

In addition, candidates must:

- have citizenship of their country
- be 18 years or older

- be at least 1,58 meters tall and have reasonable proportion between height and mass
- pass a selection test set by a selection committee

Advanced Training:

A cabin attendant starts on domestic flights and is selected on merit for advanced training for overseas flights. They must also pass conversion / refresher courses to keep an up-to-date certificate of Competency in Emergency Procedures and undergo periodic medical examinations.

Employer

- Your National Airline
- Your Air Force
- Other domestic and international airlines
- Private aviation companies
- Safari and tour operators
- self-employment - there is a small demand for free-lance cabin attendants from charter and corporate aviation companies

Career 9: Cargo Handler

The primary responsibility of a cargo handler is to supervise the loading and unloading of all consignments. They must also ensure that consignments are properly packed and web addressed, and that they are correctly loaded.

The job carries some responsibility as the cargo controller forms the link between the customer and the safe, quick and efficient delivery of consignments.

Some fulfilling and satisfying aspects of this career

- being responsible
- satisfaction when customers are happy with the service

Some demanding and challenging aspects of this career

- trying to help customers whose consignments have gone missing or items have been broken
- repetitive work can be wearying

Purpose Orientation

A cargo controller should:

- be reliable;
- have good interpersonal skills;
- have the ability to motivate co-workers;
- be able to work calmly under pressure;
- be willing to work shifts and to work indoors and outdoors.

School Subjects

Ordinary Level Certificate.

Compulsory Subjects: None

Recommended Subjects: None

Training

Transnet offers in-service training:

Practical training on-the-job and

Theoretical training

Note: candidates are subjected to an aptitude test

Employer

- fast delivery services, such as DHL, Fedex, etc.
- freighters and shippers

Career 10: Chauffeurs

Chauffeurs drive hired cars, business cars or government cars, transporting government officials, representatives from foreign countries or private individuals to and from meetings, functions and other events.

Chauffeurs also transport travellers in limousines and large vans between hotels, airports, or bus and train terminals. They may be hired to drive luxury vehicles to transport celebrities to special events. Alternatively, they may specialize in driving hearses and limousines for funerals.

Some chauffeurs are employed by wealthy families and private companies to provide personal transportation. In some instances, they may double as bodyguards. They may be expected to carry out miscellaneous errands, such as carrying mail to and from the post office. Chauffeurs are expected to ensure that the cars they drive are ready for use; that they are clean, and everything is in working order.

Some fulfilling and satisfying aspects of this career

- meeting new people
- building up business with regular clients
- being your own boss to a large extent

Some demanding and challenging aspects of this career

- working very irregular hours
- boredom during waiting periods
- long journeys can be very tiring
- stressful when passengers are in a hurry during peak traffic hours

Purpose Orientation

A chauffeur should:

- hold a valid driver's licence
- have good driving skills
- have a good sense of direction
- be friendly and able to get along with different people
- be willing to pamper passengers
- be able to make quick and good decisions in emergency situations
- be calm, responsible and have integrity

School Subjects

No specific requirements.

Compulsory Subjects: None

Recommended Subjects: None

Training

Chauffeurs are usually given in-service training to meet their employer's specific requirements.

Employer

- wealthy families and celebrities
- private companies
- large car hire companies
- local and foreign governmental organizations
- hotels
- airports
- undertakers
- leisure resorts
- taxi companies
- self-employment

Career 11: Coach Operator

Coach operator is actually a professional bus driver who specialises in driving luxury buses which transport passengers long distances.

Coach operators are not only required to drive the coach, they also need to liaise with staff, customers and suppliers, adhere to fuel and speed policies, assist with luggage and the loading of luggage and do a head count of passengers in the coach.

Customer care is also one of their responsibilities and, as with most jobs, there is also some paperwork that needs to be completed. A trip sheet has to be completed at the end destination in each case, before the coach operator signs off duty, the coach must be filled up with fuel, an after-trip inspection carried out so that any defects can be reported and rectified, and finally, there is a debriefing with the operations controller.

Coach operators work shifts and the length of their shifts depends on the route they will be taking. They need to report for work two hours before departure and carry out a pre-inspection to check that the coach is roadworthy. Then they go to the coach depot to collect the passengers.

Along the journey, they make certain pre-determined stops, either as resting points or to collect more passengers en route. Once they reach their final destination, there is usually a break of six hours off before they return to the home depot.

Some fulfilling and satisfying aspects of this career

- meeting new people all the time
- travelling and seeing the countryside
- experiencing passengers' excitement when they reach their destination
- being thanked by your passengers for the journey

Some demanding and challenging aspects of this career

- working shifts
- having to deal with demanding passengers on occasion
- being called upon to work over weekends or doing night shifts
- having to deal with poor weather conditions
- having to deal with technical breakdowns, as they can be challenging and time-consuming

Purpose Orientation

A Coach Operator should:

- able to get on well with people
- be dedicated, well-groomed and polite
- be friendly, helpful and quick-thinking
- able to solve problems and handle responsibility
- have mechanical, driving and communication skills
- be proficient in customer care and public relations.

School Subjects

Advanced Level Certificate

Compulsory Subjects: None

Recommended Subjects: None

Training

You will need to have at least three years' experience in driving and any other Permits prescribed by your national laws.

Employer

- travel companies and tour operators
- city councils
- mines
- transport companies.

Career 12: Courier

Couriers deliver and collect documents and packages at airports, companies and private residences. They usually drive in a light delivery vehicle and respond to calls from the courier depot.

Courier companies get their business by offering their clients a superior, safe and fast service. The courier is therefore under constant pressure to ensure speedy delivery and security of packages in this competitive industry. The courier ensures that customers sign delivery receipts and that parcels for delivery are correctly packaged, addressed and accompanied by a completed waybill form.

Some fulfilling and satisfying aspects of this career

- working outdoors
- satisfaction of doing a responsible job

Some demanding and challenging aspects of this career

- urgency of some assignments
- being out in all weather
- possibly being involved in rush-hour traffic

Purpose Orientation

A courier should:

- be very punctual;
- have a good knowledge of the city's roads;
- be reliable and responsible;
- have integrity;
- be neat;
- be friendly;
- be alert.

School Subjects

No specific requirements.

Compulsory Subjects: None

Recommended Subjects: None

Training

In-Service Training:

Experience and knowledge are gained through in-service training.

Additional Requirements:

If you want to become a courier you must be at least 18 years old and in possession of a valid driver's licence.

Employer

- Courier companies

The courier with the necessary experience and capital, can start their own business.

Career 13: Driver and Stacker

Drivers and stackers handle forklifting machines by moving levers and pressing pedals to control the movement of the lifting apparatus. Their role is similar to that of a forklift driver, however they are usually confined to lifting and stacking goods on top of each other.

The machines are usually electrically powered for indoor use and petrol or diesel powered for outdoor use. Indoor machines stack goods no higher than roof or ceiling level of the floor on which they operate. The machine used in outdoor operations is normally a counterbalanced forklift.

The design of the forklift may vary according to the type and size of the materials to be removed or stacked. Forklift machines are used to move materials from loaded pallets, boxes, tow trucks or trailer hitches to a designated point in a warehouse or other storage area.

Drivers and stackers use forklifting machines to: lift the load from where it has been delivered; stack each load to a suitable storage height; and to clear any obstructions.

The work requires precision because the load must be lowered at the correct angle into its exact position. Working hours and conditions depend on the nature of the products and industry.

Some fulfilling and satisfying aspects of this career

- challenging work
- knowing your work is saving time and money
- usually good job opportunities

Some demanding and challenging aspects of this career

- intense concentration for long periods, so as not to drop loads
- a good deal of energy is required, so the work can be tiring

Purpose Orientation

A driver and stacker should:

- be responsible;
- be patient and have perseverance;
- have good eyesight;
- have good eye-hand coordination as well as good coordination between right and left;
- have manual dexterity;
- be able to judge distances and heights accurately;
- be willing to work shifts.

School Subjects

No specific requirements.

Compulsory Subjects: None

Recommended Subjects: None

Training

Employers offer the following in-service training routine:

- new employees initially accompany experienced drivers so that they can gain an understanding of the whole operation;
- then practise lifting and lowering the forklift device without a load;
- then lift, lower and transport "waste" loads;
- finally they move on to stacking actual loads, starting with smaller loads.

The Occupational Health and Safety Act in South Africa stipulates that a driver and stacker should be in possession of a certificate of training issued by an accredited organisation.

Employer

- freight and transport companies
- such organizations as: National Airlines
- building contractors
- harbours
- industries that need to store material

Career 14: Driving Instructor

Driving Instructors teach people the theoretical and practical aspects of driving motor vehicles.

Theoretical training comprises lectures and demonstrations on how to handle a vehicle in an emergency, driving techniques and the mechanical operation of motor vehicles. Instructors may use blackboard diagrams, audio-visual aids and driving simulators to accomplish this task.

Practical training involves the learner driver actually starting the car, driving and parking - first in the driving-school grounds and then out on the public road - while the instructor observes the learner's driving habits and reactions under various conditions.

Driving instructors encourage improvement of the learner driver's technique until a satisfactory level of competence has been attained and the learner is able to attempt to pass a test and acquire a driver's licence.

Some fulfilling and satisfying aspects of this career

- seeing the improvement in learners' driving skills
- working with people
- meeting different kinds of people

Some demanding and challenging aspects of this career

- working with people who lack confidence and seem incapable of following instructions
- the dangers of taking learners onto public roads during training.

Purpose Orientation

A driving instructor should:

- have at least 5 years of driving experience;
- have excellent interpersonal skills;
- be patient;
- have the ability to work with young people;
- be mature;
- have a calm temperament and mental stability;
- be able to react quickly in an emergency;
- be able to deal with criticism from learners who fail their driving tests.

School Subjects

No specific requirements.

Compulsory Subjects: None

Recommended Subjects: Languages

Training

The law requires that a practising driving instructor must be in possession of an Instructor's Licence, issued by the Department of Transport or local traffic department. This is renewable annually and it is a condition of renewal that the driving instructor repeats the practical driving test. Candidates who have at least 5 years of driving experience will stand a much better chance of securing a position.

A driving school will accept an application for a position as a driving instructor, even without the necessary licence, provided that a person has the right qualities for the position.

A driving instructor can start their own Driving Schools by following laid down procedures in their nation for registering such a school.

Employer

- Driving schools
- Self-employed (own driving school)

Career 15: Flight Engineer

Flight engineers assist pilots and co-pilots on large aircraft by monitoring and operating many of the instruments and systems and watching for other aircraft. They carry out minor repairs and adjustments before take-off, while the aircraft is in flight, and after landing, to ensure the safety of the aircraft constantly.

Before take-off flight engineers carry out safety checks against a pre-flight check list. These checks include: inspecting for fuel or oil leaks; checking for electrical, hydraulic or pressurisation system malfunctions; verifying that passengers, freight and fuel do not exceed the weight limitations, and that the weight is evenly distributed.

While the aircraft is in flight the flight engineer needs to focus on the following tasks: monitoring fuel gauges and calculating the rate of fuel consumption; keeping a log of fuel consumption and engine performance; monitoring aircraft speed; maintaining cabin temperature; carrying out minor repairs; taking emergency measures in the case of equipment failure; logging repairs that were not corrected during flight and reporting these to the ground crew on landing.

As many flights take the crew of the aeroplane to far-off destinations, away from home, the airline provides hotel accommodation and an allowance for expenses. Since flights are at all hours of the day and night, work schedules are often irregular.

Some fulfilling and satisfying aspects of this career

- ensuring the safety of passengers and crew
- visiting different destinations

Some demanding and challenging aspects of this career

- being away from home for long periods
- working long and irregular hours
- stress when something goes wrong with the aeroplane that cannot be fixed while in flight

Purpose Orientation

A flight engineer should:

- be medically fit and sound mental health
- be alert
- work well in a team
- have concentration and perseverance
- be calm and clear mind, especially in emergency situations

School Subjects

Advanced Level Certificate is recommended.

Compulsory Subjects: Mathematics, Physical Sciences

Recommended Subjects: Geography

Training

To increase chances of selection to become a flight engineer, it is best to be qualified in one of the following trades: aircraft electrician, aircraft radiotrician, aircraft maintenance mechanic or aircraft instrument mechanician.

- examination set by Civil Aviation Authority on air navigation regulations and general knowledge of aeroplanes to obtain an "O" license.
- the successful candidate starts a 6 week training programme as a flight engineer on a specific aeroplane: the course covers technical aspects of the aeroplane, operational and emergency procedures and flight planning
- serve a 1-year period with a restricted licence, accompanied by a qualified flight engineer
- 40 hours of simulator training followed by a test
- allowed to fly on certain routes and must complete 50 hours on each type of aeroplane
- test followed by exemption of temporary licence
- proficiency check every 6 months in the simulator and medical test every 12 months.

Employer

- Airports
- Airline operators
- Contract work (locally and overseas)

Due to advances in aircraft technology, fewer flight engineers are required in aircraft nowadays, although National Airlines and some other flight operators still require flight engineers. Promotion possibilities are favourable and the flight engineer may progress to Senior Flight Engineer and/or Chief Flight Engineer.

Career 16: Light Delivery Van Driver

Drivers of light delivery vans transport goods from suppliers to stores and customers.

These transport loads are relatively light and usually comprise a number of small consignments for different customers. The routes for delivery vans are normally limited to a certain radius, for example, within a city and surrounding districts, but not to other cities.

Drivers of light delivery vans are responsible for checking the condition and safety of the vehicle before making deliveries and must report vehicle defects to the correct authority, for example, a fleet manager as soon as possible. They unload goods for customers and ensure that they sign delivery notes. Drivers are sometimes responsible for receiving money and issuing receipts.

Drivers usually work regular hours on the same routes every day. In the case of the delivery of newspapers or fresh products such as milk, they have to start work very early in the morning. Depending on new deliveries, the routes may also change.

Some fulfilling and satisfying aspects of this career

- challenging work
- knowing that your work is saving time and money
- relatively good job opportunities

Some demanding and challenging aspects of this career

- concentrating and keeping patient in heavy traffic
- a good deal of energy is required, so the work can be tiring

Purpose Orientation

A light delivery van driver should be/have:

- at least 18 years old, with a valid driver's licence
- responsible, with sober habits
- good driving record
- be alert and attentive
- have physical fitness and stamina
- good eyesight and eye-hand coordination
- good coordination between right and left and manual dexterity
- able to judge distances and heights accurately
- willing to work shifts
- mentally stable
- mechanical aptitude to perform emergency repairs

School Subjects

No specific requirements.

Compulsory Subjects: None

Recommended Subjects: None

Training

Driver's license

Experienced drivers normally accompany light delivery van drivers until they are familiar with routes and procedures

Employer

- Private transport companies
- Companies that offer their customers a delivery service
- Self-employment - a light delivery van driver with the necessary experience and capital, can buy his own vehicle to start a delivery business.

Career 17: Load Master and Winch Operator

The load master and winch operator accompany the air crew on flights.

The load master:

- ensures that air cargo is loaded correctly;
- logs flying hours;
- records the amount of fuel used.

The winch operator:

- accompanies helicopter crews on deliveries to ships at sea;
- is responsible for loading and unloading cargo;
- picks up and lowers people while the helicopter hovers over a point.

Some fulfilling and satisfying aspects of this career

- very responsible job
- seeing different parts of the country

Some demanding and challenging aspects of this career

- being out in adverse weather conditions
- can be very tiring

Purpose Orientation

A load master and winch operator should:

- be in good health and physically fit;
- have stamina;
- be responsible;
- enjoy flying, even in dangerous circumstances.

School Subjects

Advanced Level Certificate.

Compulsory Subjects: None

Recommended Subjects: None

Training

Employers offer an in-service training programme (3 months) which covers theory and practice.

Employer

- Air-freight companies
- National Air Force
- National Airlines
- Private airlines

Career 18: Motor Mechanic

Motor mechanics maintain and repair motorcars, buses, trucks and other vehicles. They receive information regarding the faults of the vehicle from owners. They take the vehicle for a test drive and use electronic equipment to identify, confirm and locate the problem. After determining the cause of the problem they prepare a quotation for cost of repair.

Motor mechanics may take out broken or damaged parts of vehicles, order new parts, or alternatively, repair or replace the broken or damaged parts. Where necessary they will adjust brakes; replace shock absorbers; tighten bolts; align wheels; solder leaks in the radiator; replace oil, oil filters and air filters; and adjust lights, heaters, mirrors and windscreen wipers.

Some fulfilling and satisfying aspects of this career

- variety of work tasks
- working with your hands
- challenge of diagnosing and solving problems
- the opportunity to specialize and/or to open own business

Some demanding and challenging aspects of this career

- possibility of injury or accidents on the job
- having to work in awkward or cramped positions
- working in dirty, noisy workshops
- dealing with impatient or overly critical customer

Purpose Orientation

A motor mechanic should:

- enjoy working with his hands;
- have mechanical aptitude and ability;
- have manual dexterity;
- communicate efficiently with people;
- be practical;
- have integrity and be responsible;
- have good health and physical strength;
- have good eyesight, hearing and coordination.

School Subjects

Ordinary Level Certificate.

Some employers prefer higher qualifications.

Compulsory Subjects: None

Recommended Subjects: Mechanical Technology, Engineering and Graphic Design, Technical Drawing, Mathematics, Physical Sciences

Training

Diploma in Mechanical Engineering

Register with an employer providing suitable in-service training.

Employer

- service stations of new and used car dealers
- independent repair shops
- vehicle service stations
- vehicle parts wholesalers and distributors
- bus and transport companies
- organizations that maintain their own vehicles
- government departments
- a motor mechanic with the necessary experience and capital, can start a business

Career 19: Motorcycle and Scooter Mechanic

Motorcycle mechanics service, repair, overhaul and assemble motorcycles, scooters and similar vehicles. They determine the nature and extent of malfunctions.

Motorcycle mechanics may connect and test the engine panel; measure and adjust the generator output, ignition and timing. They dismantle engines and repair or replace defective parts. This may involve removing cylinder heads and grinding valves and manufacturing unobtainable parts, they then re-assemble and test the repaired engines.

Where necessary, they replace worn valves, pistons and cylinders; repair and adjust clutches, brakes and drive chains; repair, replace or adjust headlights, starters, mufflers and various other parts; panel-beat dents in frames and weld tears; and put in spokes and align wheels.

Some fulfilling and satisfying aspects of this career

- working with your hands
- the challenge of diagnosing and solving problems
- steady employment
- the possibility of opening your own business

Some demanding and challenging aspects of this career

- possibility of injury or accidents on the job
- having to work in awkward or cramped positions
- working in dirty, noisy workshops
- dealing with impatient or overly critical customer

Purpose Orientation

A motorcycle and scooter mechanic should:

- be at least 16 years old;
- have mechanical ability;
- enjoy working with their hands and have manual dexterity;
- be practical;
- work accurately;
- have good eye-hand coordination;
- have good health and stamina.

School Subjects

Ordinary Level Certificate.

Some employers prefer higher qualifications.

Compulsory Subjects: None

Recommended Subjects: Mechanical Technology, Engineering and Graphic Design, Technical Drawing, Mathematics, Physical Sciences

Training

Apprenticeship training.

Employer

- Motorcycle and scooter dealers
- Government departments (to maintain police motorcycles and scooters)
- Firms that modify and maintain motorcycles and scooters
- Manufacturers of motorcycles and scooters
- Self-employment, with enough experience, initiative and capital, can start own business

Career 20: Navigating Officer

The main responsibilities of navigating officers are the piloting of seafaring vessels and determining a ship's position by means of the sun, moon, stars, landmarks, magnetic compasses, electronic radio and radar systems. Continual reference to this equipment and to landmarks helps to keep the ship on course.

Navigating officers' skills are particularly necessary in situations such as passing through narrow waterways and entering and leaving harbours. They need to be able to navigate a ship by radar alone.

They need to keep a continual watch on the ship's position whilst coasting by means of objects or the shoreline. They take charge of the watch at sea and are responsible for the ship's bridge instrumentation. Weather forecasts and radio messages are also considered when determining the course of passage. The navigating officer is in charge of a team, responsible for the ship's navigating instruments. They are also responsible for ships' refuelling.

Navigating officers need to have a good knowledge of the "rule of the road" at sea and be able to interpret it for their fellow watch keeping officers. As officers, they also have the normal shipboard duties, such as maintaining crew discipline.

Some fulfilling and satisfying aspects of this career

- travelling to different ports
- job security
- camaraderie with other personnel on board ship

Some demanding and challenging aspects of this career

- being away at sea for long periods
- the small possibility in the future of being made redundant with more sophisticated machinery being installed

Purpose Orientation

A navigating officer should:

- have technical aptitude;
- be practical;
- be responsible and reliable;
- be emotionally stable;
- have leadership abilities;
- be intelligent;
- be physically fit;
- love the sea.

School Subjects

Advanced Level Certificate meeting diploma requirements for a diploma course

Each University or College will have its own minimum entry requirements.

Compulsory Subjects: Mathematics, Physical Sciences

Recommended Subjects: Geography

Training

Diploma: Navigating cadets need to obtain their Diploma in Maritime Studies before applying for a post as navigating trainee. Prospective navigating officers must find employment with a shipping company. On completion of the qualifying sea service, trainees sit for their Class 3 Deck Certificate of Competency.

Employer

- Navy
- Transport Services
- Department of Sea Fisheries
- Marine Division of the Department of Transport

Career 21: Navigator Aircraft

The main responsibility of navigators is to locate positions of other aircraft and to direct the course of their aeroplanes.

They use navigational aids such as charts, radar, compasses, navigation computers, and sophisticated electronic equipment such as GPS or global positioning system.

Navigators are fully fledged members of the air crew and make use of highly specialized computer systems to carry out their tasks. They may be appointed as operational commanders of the aircraft and must be able to make quick decisions. Electronic warfare is an integral part of the Air force navigators' tasks.

Navigators operate the electronic systems on board, and because of rapid development in the electronics field, must be increasingly competent in their computer operations.

There are four main specialization areas, namely:

Assault navigators: whose primary task is to trace hostile targets, such as hostile aeroplanes, runways, tanks and convoys so that they can be destroyed. They make use of, amongst others, the Cheetah-D fighter aircraft that is flown by two crewmembers, the pilot and the navigator. The pilot and assault navigator work as a team to neutralize the enemy. Assault navigators sometime also do visual and photo reconnaissance.

Maritime navigators: who watch over the coastline and specialize in air operations, which are carried out over the sea. The maritime force protects the coastline of South Africa, which is one of the world's busiest. Maritime navigators perform operations such as coastal patrols, tracing of hostile ships and submarines, and rescue operations.

Reconnaissance navigators: fly in aircraft, such as Impalas, which are equipped with sophisticated spying equipment. The main function of a reconnaissance navigator is to obtain information on the position and potential of the enemy without the enemy realising that they are being watched. These functions sometimes take reconnaissance navigators deep into enemy territory and they must know exactly what they are looking for and how to find it.

Airborne navigators: pinpoint landing sites for parachutists. It is important in warfare that supplies are accurately and regularly provided. Supplies which are lost or which do not reach their destinations can result in an unsuccessful mission. The airborne navigator must ensure that the supplies and troops are in the right place at the right time. To perform this work, airborne

navigators must be able to navigate at any time, day or night, in any conditions, and in any territory. Often there is no suitable place to land and troops are dropped by parachute. Airborne navigators must work very accurately to ensure that equipment, supplies and troops are dropped as close as possible to the target and not in enemy territory.

Some fulfilling and satisfying aspects of this career

- good promotion prospects
- being able to fly in aircraft
- knowing your work is helping defend your country

Some demanding and challenging aspects of this career

- spending time away from home
- irregular hours
- flying in bad weather conditions
- working under stress

Purpose Orientation

A navigator should:

- be interested in electronics, science and aeroplanes;
- have a sharp mind, with pinpoint accuracy;
- be able to make accurate decisions quickly;
- be able to remain calm under extremely stressful conditions;
- demonstrate leadership abilities;
- self-confident;
- have good interpersonal skills.

School Subjects

Advanced Level Certificate

Compulsory Subjects: Mathematics

Recommended Subjects: Physical Sciences, Geography, Information Technology

Training

A Basic Navigator Course lasts 18 months and it comprises 3 phases, namely:

- Regimental training
- Officers' formative course
- Navigation training

Employer

- National Air Force

Career 22: Petrol Pump Attendant

Petrol pump attendants work at filling stations or garages where petrol is served to customers.

Petrol pump attendants' tasks include:

- filling customers' vehicles with petrol or diesel to the requested level
- taking cash and providing change or preparing bank petrol charge slips
- checking the oil and water levels of the vehicle
- cleaning windscreens
- checking the air pressure of tyres and pumping them up if necessary
- changing flat tyres
- selling and fitting minor spares

Some fulfilling and satisfying aspects of this career

- working mostly outdoors
- working with people
- receiving good tips from customers when good service is provided

Some demanding and challenging aspects of this career

- dealing with rude and over-demanding people
- boredom during slack periods
- not very high remuneration

Purpose Orientation

A petrol pump attendant should:

- be friendly and helpful;
- have reasonable verbal ability;
- able to understand and carry out instructions;
- be responsible and reliable;
- able to work quickly;
- be willing to work night shifts, at weekends and on public holidays.

School Subjects

No specific requirements.

Employers prefer a Grade 8 Certificate.

Compulsory Subjects: None

Recommended Subjects: Mathematics, Mechanical Technology

Training

Petrol pump attendants receive their training on the job. At first the trainees will perform relatively simple tasks such as cleaning the station, serving petrol and cleaning windscreens.

Gradually they may progress to more advanced work, such as performing simple maintenance tasks on vehicles, fitting parts on cars and helping to keep records.

Some garages send their attendants for training courses at their head office or training centre. The following can be offered to attendants by garages for their employees:

- Basic fire training.
- Health hygiene.
- Security awareness.

Working from lower levels can enable attendants to proceed to positions such as cashiers, drivers or senior attendant's managers.

Employer

- petrol filling stations
- garage owners

Career 23: Petroleum Technologist

Petroleum technologists assist in the exploration of and drilling for, oil and gas. They make an important contribution to the manufacturing of fuel, lubricants and other petroleum products.

Petroleum technologists may be involved in the search for new oil wells. This involves geological work and those involved in this field are known as geological petroleum technologists. In the extraction process petroleum technologists do research on the different types of mud used to lubricate drill bits.

Petroleum technologists are also involved in the evaluation of crude oil to determine its specific properties and classification, which will, in turn, determine the refining parameters. During the refining process, laboratory petroleum technologists do testing and evaluation of the various cuts.

Petroleum technologists, who are known as sales technology advisers, lubrication engineers, etc. do quality control and promotion of petroleum products.

The primary function of the petroleum laboratory technologist is quality control or product evaluation, whether in a refinery, a lubricant manufacturing plant or in the field of petroleum product application and use. This work involves various physical and chemical tests and depends upon the nature and application of the product concerned.

Petroleum technologists may specialize in any of the various products obtained from crude oil by refining processes, and these include:

- liquid petroleum and gas
- aviation, motor, diesel and furnace fuels
- kerosene and solvents
- lubricating oils and greases
- waxes, bitumen and special products.

Some fulfilling and satisfying aspects of this career

- doing laboratory work, as well as some fieldwork
- the possibility of being sent overseas for further training
- variety of specialities to choose from

Some demanding and challenging aspects of this career

- possible injury or accident on the job
- travelling to different exploration sites
- sometimes having to concentrate for many long hours indoors

Purpose Orientation

A petroleum technologist should:

- possess a scientific aptitude;
- be versatile;

- work as part of a team;
- be systematic;
- have analytical reasoning ability.

School Subjects

Advanced Level Certificate meeting diploma and degree requirements

Each University or College will have its own minimum entry requirements.

Compulsory Subjects: Mathematics, Physical Sciences

Recommended Subjects: Geography

Training

Degree: A BSc degree with Chemistry

Diploma in Analytical Chemistry

Diploma in Chemical Engineering

Both the degree and the diploma courses take 3 years to complete full-time.

Employer

- Chemical Industries
- Various oil refining companies

Career 24: Pilot – Civilian

Pilots are highly trained professionals who fly aircraft, performing a multitude of tasks. Most pilots are employed in the commercial and military aviation fields.

Civilian or private pilots may not offer flying services in exchange for reward but fly merely for pleasure or may apply their flying abilities in their own businesses. They usually only have a private pilot's licence.

Professional pilots work within the commercial field. They hold either a commercial pilot's licence or an airline transport pilot's licence. The work may involve transporting passengers and cargo to and from airports or performing tasks such as crop dusting, inspecting pipelines, conducting sightseeing trips or helping with rescue operations.

There are usually two pilots on board during commercial airline operations but there may be more depending on the type of aircraft and specific requirements.

The captain is the pilot-in-command and the first officer is the co-pilot. The captain is responsible for the safety of the aircraft, passengers, crew and cargo. The captain supervises the crew, gives instructions and makes all decisions.

It is the captain's job to check the aircraft, route, weather and an alternative destination before take-off, then fly the aircraft over the planned route, land it and file the flight report. The co-pilot assists or relieves the captain in the operation of the aircraft, as well as monitoring flight instruments and air traffic control channels.

The working life of an airline pilot is highly regulated by flight duties. A pilot is only allowed to fly a specific number of hours in a month. Evaluations and medical examinations continue throughout the pilot's career.

Some fulfilling and satisfying aspects of this career

- the opportunity to travel
- the prestige of the position
- the actual flying

Some demanding and challenging aspects of this career

- spending time away from home
- irregular hours
- flying in bad weather conditions
- the possibility of accidents
- working under stress

Purpose Orientation

A civilian pilot should:

- pass compulsory aviation medical examination;

- must be at least 17 years old;
- have excellent health and stamina;
- have good hearing, eyesight and good colour discrimination;
- have no history of organic or nervous disease, mental disorders, drug addiction or alcoholism;
- be responsible;
- have above-average intelligence;
- be able to work well under stress;
- be emotionally stable and mature;
- be able to work in a team.

School Subjects

Advanced Level Certificate

Compulsory Subjects: Mathematics, Physical Sciences

Recommended Subjects: Geography, Languages

Training

Private Pilot: The training for a private pilot can be done at numerous licensed flying clubs or schools:

- Theoretical training
- Practical training
- At least 40 flying hours.

After completion of the course, a Private Pilot Licence (PPL) is obtained which entitles the pilot to fly for recreational purposes but not for money or any reward.

Professional Pilot: qualified private pilots may enrol at certain advanced flying schools to receive training as a commercial pilot and qualified commercial pilots may receive training toward obtaining an Airline Transport Pilot's Licence.

Commercial Pilot: Commercial Pilot Licence (CPL):

- Theoretical examinations are written at the Department of Civil Aviation
- The practical part is done by the Designated Examiners
- 200 hours of flying experience.

After completion of the course a Commercial Pilot Licence (CPL) is obtained and the pilot can start work as a pilot, but it is difficult to get employment with less than 500 hours of flying experience. Insurance companies usually require at least 500 hours of flying experience.

Airline Pilot: the Airline Transport Pilot Licence can be obtained from a private airline or the National Airline and may take up to four years of active study and flying conversion training.

Well established National Airlines like Kenya Airways and South African Airways have their

own Cadet Pilot training programmes. You may apply for this programme when advertized. The successful candidates are sent by the National Airline's Fyling School. The training programme consists of a theoretical part at a ground school, and a practical part where the candidates are first trained in the flight simulator and thereafter in the aircraft. The successful candidate is employed as a co-pilot by the National Airline and when experienced enough, promoted and trained to fly as captain.

- In possession of a Commercial Pilot Licence (CPL)
- Younger than 35 years of age.

Employer

- Department of Transport
- Directorate of Civil Aviation
- Commercial airlines
- Flying schools
- Charter organisations
- Private airlines
- Air taxi companies
- Self-employment, as a free-lance pilot

Career 25: Platelayer

Platelayers are responsible for laying down and maintaining a designated section of railway line and checking the safety of the area surrounding the track, especially bridges, tunnels and drains. They are assisted by and responsible for the supervision of teams of workers.

Some fulfilling and satisfying aspects of this career

- working with your hands
- working with others
- working outdoors

Some demanding and challenging aspects of this career

- possibility of injury on the job
- working in all kinds of weather conditions
- limited job opportunities
- physically taxing work

Purpose Orientation

A platelayer should:

- have physical stamina;
- pay meticulous attention to safety considerations;
- be responsible;
- have integrity.

School Subjects

Ordinary Level Certificate.

Compulsory Subjects: None

Recommended Subjects: None

Training

Training from National Railways training centres after passing aptitude test.

Employer

- National Railway

Career 26: Sea Transport Worker: Deck and Engine Room Rating

Deck and Engine room Rating: Deck and engine-room workers are responsible for maintaining the exterior of the ship, lookout watches at sea, gangway duties in port and cleaning, repairing and ensuring that the ship's engine is kept in good working order. These workers are trained in the art of seamanship and general nautical knowledge.

Quartermaster: In addition to normal deck duties the quartermaster is responsible for manning the gangway in port, making deck rounds, checking moorings and steering in restricted water.

Boatswain: This is a petty officer in charge of the quartermasters and deck crew and takes orders from the first / chief officer of the ship.

Watch keeper: In addition to normal engine-room duties, the watch keeper assists the senior engineer officer on watch with watch keeping duties, maintains the engine and supervises engine-room cleanliness.

Maintenance assistant: The engine-room leading hand is the petty officer in charge of the watch keepers and engine-room crew. The maintenance assistant is responsible for checking, stowage and the security of engine-room stores and takes orders from the second engineer officer.

Some fulfilling and satisfying aspects of this career

- working at sea most of the time
- variety of work to choose from
- being able to get a job with little formal education

Some demanding and challenging aspects of this career

- being away from home for long periods
- routine work tasks that need to be done daily
- stress of being in close quarters with the same people for long periods

Purpose Orientation

A deck and engine-room worker should:

- love the sea and outdoor life;
- be in good health and physically fit;
- be willing to work hard and live in confined conditions.

School Subjects

Ordinary Level Certificate meeting diploma requirements for a diploma course

Each University or College will have its own minimum entry requirements.

Compulsory Subjects: Mathematics and Physical Sciences

Recommended Subjects: Life Sciences

Training

Diploma in Maritime Studies

Employer

- Private shipping companies
- Shipping charter companies

Career 27: Tax Driver

Taxi drivers transport passengers for a fee. There are basically two categories of taxis: those that cater mainly for business travellers and tourists and those that service regular commuter routes (minibus taxi).

Taxi drivers that cater for business travellers and tourists usually transport people to airports, convention centres or places of entertainment. These drivers pick up passengers waiting in taxi lines at airports, bus and railroad terminals, convention centres or hotels. Customers may also call taxi companies, which relay the information to their nearest taxi driver by means of two-way radio. These taxi drivers transport the passengers, collect the fee according to the meter in the taxi and record the transaction in a log. The taxi drivers in this category are expected to be familiar with tourist hotels and places of interest.

Minibus taxi drivers transport: daily commuters from outlying areas to their places of work in the city or other industrial areas; and children to their schools. These taxi drivers charge a set fare for a particular route and distance. They collect passengers at taxi ranks at any point along regular routes. The passengers use hand signals to indicate the part of town to which they want to travel. They expect minibus taxi drivers to be familiar with peak hour traffic patterns and less congested routes to ensure that they get to work and school on time.

Some fulfilling and satisfying aspects of this career

- working without close supervision
- taking responsibility for the safety of the taxi its passengers
- working with people
- travelling

Some demanding and challenging aspects of this career

- having to report to work at short notice if another driver does not turn up
- working weekends, evenings or holidays
- working under pressure
- driving in rush hour traffic
- driving in adverse weather conditions

Purpose Orientation

A taxi driver should:

- be in possession of a valid driver's licence;
- have good driving skills;
- have a good sense of direction;

- be patient when waiting for customers;
- be able to deal with rude customers;
- have a calm temperament for when driving in congested traffic;
- be reliable to pick up customers at times agreed upon;
- be responsible;
- have integrity.

School Subjects

No specific requirements.

Compulsory Subjects: None

Recommended Subjects: None

Training

In-Service Training:

Many bodies offer short training courses for the taxi drivers.

Employer

- taxi companies
- minibus taxi owners
- self-employment, with enough experience, initiative and capital, can purchase own vehicle and operate independently and even start their own fleet of taxis

Career 28: Traffic Officer

The objective of a traffic officer is to ensure the safe and free flow of traffic on public roads, as well as law enforcement, education and assistance. The traffic officer performs duties within the municipal boundaries.

Traffic officers test prospective drivers for licences and inspect vehicles for roadworthiness. They control traffic and ensure effective traffic flow and enforce laws and regulations pertaining to road traffic. Sometimes they provide evidence in traffic court cases.

In some provinces the duties of the traffic officer and the provincial inspector are combined. In others, a distinction is made between the traffic officer and the provincial inspector. Traffic officers control traffic and patrol roads and highways. Provincial inspectors protect the public from malpractice, particularly in commerce and ensure that trading hours are adhered to.

Some fulfilling and satisfying aspects of this career

- working with people and helping them obey traffic laws
- helping reduce motor accidents and thus saving lives
- not being desk bound

Some demanding and challenging aspects of this career

- working with obstinate people
- having to work during holidays and weekends
- prosecuting people for minor offences

Purpose Orientation

A traffic officer should:

- have a friendly and sympathetic approach to people experiencing difficulties;
- be ready to assist where necessary;
- maintain sound judgement;
- have a reasonable knowledge of human nature;
- be firm and decisive when required;
- be physically fit and have stamina;
- present a neat appearance;
- be well-spoken.

School Subjects

National Senior Certificate.

Compulsory Subjects: None
Recommended Subjects: None

Training

Prospective traffic officers undergo intensive training that consists of theoretical as well as practical components.

Employer

- Municipalities
- Provincial governments

Career 29: Train Control Officer

The main responsibility of train control officers is to control the running of trains on an allocated section of track.

The train control officer's duties include: recording arrival and departure times of trains from stations; and using various control systems.

At smaller stations train control officers usually have to perform a larger range of tasks, such as selling tickets and the receiving and storing of light goods and parcels.

Some fulfilling and satisfying aspects of this career

- working with trains
- steady employment
- being able get a job with little further training

Some demanding and challenging aspects of this career

- dealing with rude or difficult people when controls break down and there are delays

Purpose Orientation

A train control officer should:

- be punctual;
- be responsible;
- have integrity and be dependable;
- be a precise and accurate worker;
- be meticulous about keeping records.

School Subjects

Ordinary Level Certificate

Compulsory Subjects: None

Recommended Subjects: None

Training

Railway Services in-service training course

Employer

Railway Lines

Course 30: Train Driver

Train drivers are in charge of electrical or diesel locomotives that haul passenger or long and heavy goods trains.

A train driver starts the locomotive and increases speed; watches the instruments, such as the speed, temperature and pressure gauges, in the locomotive; interprets signals, such as hand, flag, shunter and speed signals, along the line. A train driver must keep a train under control and decrease the speed to stop the train.

A train driver's assistant is responsible for assisting the train driver. The assistant helps the driver to prepare the train for a journey, start the train, and bring it to a halt. The assistant also carefully observes the signals, hand, flag and speed-limiting signs and alerts the driver to any problems.

The career of train driver is best suited to the person who does not like the daily routine of office work.

Diesel loco drivers are responsible for driving a diesel locomotive for the purpose of transporting waste products, materials and components between the various work sections.

The drivers receive their instructions verbally by radio or according to a schedule. After each shift they submit a report on the work done. They are also responsible for keeping the diesel locomotive in good working order. All work is done efficiently, punctually and safely.

Some fulfilling and satisfying aspects of this career

- lots of sightseeing
- having extensive knowledge of different routes and cities
- meeting a variety of people

Some demanding and challenging aspects of this career

- working long and irregular hours
- being away from home for long periods
- having to be alert for such long periods can cause eyestrain and stress

Purpose Orientation

A train driver should:

- be mature and disciplined;
- make decisions and act rapidly;
- be reliable and responsible;
- have physical fitness and stamina;
- have excellent eyesight;

- have good perception;
- be able to concentrate for long hours;
- be willing to work shifts.

School Subjects

Ordinary Level Certificate for the train driver's assistant.

Compulsory Subjects: None

Recommended Subjects: None

Training

Practical and theoretical training are offered by Railway Services.

Employer

Railway Services for each country

Career 31: Travel Agent

Travel agents make travel arrangements based on the needs, budgets and tastes of customers. Clients may include individuals, families or groups, and business people.

Travel agents give information to customers and answer questions concerning transportation, passports, visas, currency regulations, tourist attractions, hotel reservations and the booking of flights. They also make other special arrangements which customers may request such as car rentals, sightseeing trips, or ordering of traveller's cheques.

When travel agents make these arrangements, they must consult tariff schedules such as those that are published by the International Air Travel Association (IATA). Similar guides are used to gain other tourist information on accommodation. They also make recommendations to clients on the strength of their own experience or knowledge.

The travel industry is highly specialized and computers play an important role in the collection of information, planning, bookings and the processing of itineraries.

Some agents, especially those who are self-employed, also do promotional work, such as hold meetings with business managers to suggest for example, company-sponsored trips.

Some fulfilling and satisfying aspects of this career

- working with people
- helping people arrange successful holiday and/or business trips
- opportunities to travel at reduced fares

Some demanding and challenging aspects of this career

- working with unpleasant or over-demanding people
- working under pressure
- frequent telephone and visitor interruptions
- working long hours during certain seasons and holidays
- doing detailed work

Purpose Orientation

A travel agent should:

- have a good appearance;
- be able to get along with others;
- be helpful, pleasant, friendly, patient, tactful and polite;
- be able to assume responsibility;

- have sales ability;
- be able to communicate well in speech and writing;
- have broad travel experience;
- be bilingual or multilingual;
- have a good knowledge of geography, at the very least of the country where working.

School Subjects

Ordinary Level Certificate meeting diploma requirements for a diploma course

Each University or College will have its own minimum entry requirements.

Compulsory Subjects: None

Recommended Subjects: Geography, Languages, Mathematics, Tourism

Training

Diploma in Tourism Management or Travel & Tourism

Most travel agencies employ people who have already completed some sort of training for this career.

Special licensing or certification is required by the Travel Agents' Board. Travel agencies have to be licensed with the International Air Transport Association (IATA) to be able to issue international airline tickets.

International airlines organize special tours to different countries for the training of travel agents and they invite travel agencies to send representatives.

Employer

- tourism boards
- private travel agencies
- self-employment, with enough experience, initiative and capital, can open own travel agency

Career 32: Truck Driver

Truck drivers transport cargo to and from specified destinations. The route may be a long city-to-city haul, a drive within a city or even short trips inside construction or mining compounds. They may also do regular long-distance runs on the same route, sometimes sharing the driving with another driver.

Truck drivers are responsible for driving these heavy vehicles safely, in accordance with road regulations and with maximum efficiency. They are responsible for checking the condition and safety of the trucks before leaving but may also have to perform emergency roadside repairs if problems are experienced on the journey.

Other responsibilities of truck drivers include:

- supervising the loading and unloading of merchandise
- handing customers delivery forms and asking them to sign receipts
- accepting money
- keeping a log of the journey and reporting repairs that need to be made to the truck
- transporting perishable or hazardous substances necessitates truck drivers to adhere strictly to the regulations established for the transit of such cargo

Some fulfilling and satisfying aspects of this career

- working without close supervision
- taking responsibility for the safety of the truck and its cargo
- generally steady work and reasonable remuneration
- travelling

Some demanding and challenging aspects of this career

- working weekends, evenings or holidays
- working under pressure
- driving in rush hour traffic
- being away from home for long periods
- driving in adverse weather conditions

Purpose Orientation

A truck driver should:

- have physical fitness and stamina;
- have excellent eyesight;
- have good perception;
- be responsible with sober habits;
- have mental stability;
- have mechanical aptitude to perform emergency repairs;
- be able to drive for long hours without losing concentration.

School Subjects

Ordinary Level Certificate.

Compulsory Subjects: None

Recommended Subjects: None

Training

In-service training:

Drivers are normally accompanied by an experienced driver until they are familiar with routes and procedures.

Employer

- transport companies
- government departments
- retail food chains
- companies that need to transport goods
- self-employment, with enough experience and capital, can buy own heavy vehicles to start own business

Career 33: Truck Driver Assistants

Truck drivers' assistants help truck drivers by performing some of the routine tasks.

They check the condition and safety of vehicles before embarking on journeys. They ensure that brakes, lights, fire extinguishers and other safety equipment are in good working order. They adjust the mirrors so that both sides of the truck are visible from the driver's seat and ensure that defects and necessary repairs are reported.

Truck drivers' assistants supervise and assist with the loading and unloading of goods. They navigate the route, where necessary and help to drive the trucks on long distances trips.

This assistant also deals with the paperwork, ensuring that receipts are signed and the money due for goods is collected.

Some fulfilling and satisfying aspects of this career

- working without close supervision
- taking responsibility for the safety of the truck and its cargo
- generally steady work
- reasonable remuneration
- travelling

Some demanding and challenging aspects of this career

- working weekends, evenings or holidays
- working under pressure
- driving in rush hour traffic
- being away from home for long periods
- driving in adverse weather conditions

Purpose Orientation

A truck driver's assistant should:

- have physical fitness and stamina;
- have excellent eyesight;
- have good perception;
- be responsible with sober habits;
- have mental stability;
- have a mechanical aptitude to perform emergency repairs;
- be able to sit for long hours without losing concentration.

School Subjects

Ordinary Level Certificate.

Compulsory Subjects: None

Recommended Subjects: None

Training

In-service training:

An experienced truck driver trains the assistant in company policy, preparation and processing of paperwork and handling and maintenance of the truck.

Employer

- Transport companies
- Government departments
- Retail food chains
- Companies that need to transport goods

Career 34: Yard Official

The main duty of yard officials is the safe marshalling and transport of trainloads. They control the shunting movements of passenger coaches and goods wagons using radio communication or hand signals.

Yard officials work in shunting yards where trains are loaded and unloaded. The contents of the trucks vary from heavy ore to livestock.

Yard officials connect trucks to the correct train and ensure that all trucks are properly coupled. They also make sure that the train has sufficient braking force for the proposed journey. They need to keep the external condition of trucks in good order. They may be required to feed livestock where necessary and check cooling units. Obviously, special precautions need to be taken when shunting trucks carrying explosives.

Some fulfilling and satisfying aspects of this career

- working with your hands
- working with others
- working outdoors

Some demanding and challenging aspects of this career

- possibility of injury on the job
- working in all kinds of weather conditions
- limited job opportunities
- physically taxing work

Purpose Orientation

A yard official should:

- be reliable and responsible;
- be in good health to perform physically demanding work;
- be able to work in a team;
- like to work outdoors, not minding weather conditions;
- be safety conscious.

School Subjects

Ordinary Level Certificate

Compulsory Subjects: None

Recommended Subjects: None

Training

The yard official receives training by working in a team with qualified persons.

Employer

National Railways