

If you want to attend a **University of Technology** you will need to achieve at least a **NSC** with an **achievement rating of three or better** in **four of the designated NSC 20-credit subjects** listed below:

*Accounting, Agricultural Management Practices, Agricultural Sciences, Agricultural technology, Business Studies, Civil Technology, Computer Applications Technology, Consumer Studies, Dance Studies, Dramatic Arts, Economics, Electrical Technology, Engineering Graphics and Design, Geography, History, Hospitality Studies, Information Technology, Languages (refer to institution websites for their language requirements), Life Sciences, Mechanical Technology, Mathematics, Mathematical Literacy, Music, Physical Sciences, Religion studies, Tourism and Visual Arts.*

### What role can parents play?

- Parents are encouraged to discuss the various options with their child to ensure the appropriate subject choices are made.
- Parents can help their children collect information on a variety of careers and the necessary subjects and NSC grade 12 passes that they will require.
- This is a very important decision that will have an effect on the learners' future, especially their career options.
- Parents can assist their children to make subject choices depending on what the child is interested in doing or the kind of career the child may be considering.
- Almost all types of employment require some kind of training. Further education and Training Colleges and Universities require learners to have particular combinations of subjects in order to study further.
- It is particularly important that learners find out if they need mathematics or mathematics literacy to study further.
- Parents could approach the School Governing Body to request the school to collect information on further study options and careers from the District, Province or FET Colleges and /or universities.

**Learners should visit the SAQA website: [www.careerhelp.org.za](http://www.careerhelp.org.za)**

SAQA helpline number: **0860 111 673**

SMS/Text Message: **0722 045 056**

Email: **[help@careerhelp.org.za](mailto:help@careerhelp.org.za)**

**If you have a mobile device with Internet access, you can access the below mobile sites:**

[www.vuma.ac.za](http://www.vuma.ac.za)

[www.pacecareers.com](http://www.pacecareers.com)

[www.careerplanet.co.za](http://www.careerplanet.co.za)



*Tips for parents*

## Subject Choices & Career Paths

*Read this*



**basic education**

Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA

## Subject choices and career pathing

Grade 9 is an important year in the life of every South African learner. You need to start thinking about possible careers during grade 9. Your choice will also depend on what subjects are offered at your school from Grade 10. In order to make the right choice of subjects in grade 10, learners should know the career path they wish to pursue on completion in Grade 12.

In order to obtain the National Senior Certificate in Grade 12, learners must have **SEVEN** subjects – four compulsory and three which are chosen at the end of Grade 9 for Grade 10 – 12.

The four compulsory subjects are 2 official Languages (one Home Language and one First Additional Language), Mathematics or Mathematical Literacy and Life Orientation. Learners must also choose three optional subjects from a list of 25 approved subjects. Of these, a maximum of two additional languages may be selected.

Learners are allowed to change two of the optional subjects in Grades 10 and 11. In Grade 12, learners are able to change one of the optional subjects.

### Why is it important for learners to make informed subject choices?

The subject choice at the end of Grade 9 could determine the field of study learners can follow once they complete school. In other words, if learners do not select the correct combination of subjects, they could find themselves unable to enter into certain higher or further education programmes. So when making this important subject choice, learners should consider their options for when they complete school and select accordingly.

For some career paths, a learner may need to complete a degree at a higher education institution or a certificate/diploma through a Further Education and Training College or a SETA. The first thing learners need to know is that to qualify for higher/further education and training studies they must make certain that they have the right subjects to meet the minimum entry requirements to study further. Of course, for a degree, diploma or certificate studies, it is important that the learner chooses subjects that are appropriate to the career he/she intends to follow and that they try to keep their options open as their plans may change as the go along.

### Further Studies after Grade 12

Choosing the right subjects is only the first step to getting into a university, university of technology or FET College. Learners also have to have certain levels of achievement to meet the entry requirements for that particular qualification. One way for universities to measure your level of achievement is with a point rating system. No matter what kind of tools universities use as entry requirements, the bottom line is that the better you perform in all your subjects, the more options you have. When you apply for further studies at an institution, they will also consider your Grade 11 subject marks before you have written the National Senior Certificate.

The subjects that you select on entry into Grade 10 must link to the field of study in which you are interested as a future career. In addition, each direction or field of study will have its own set of entry requirements, which means that you will have to achieve at a certain level in certain subjects. Many qualifications for example, require you to achieve well in mathematics. But each course of study will require you to achieve at a certain level. Make sure that you begin to work very hard in all your subjects from the beginning of the year.

The subject choices you make that the end of Grade 9 are important for your future success. Below are some examples of the sorts of career opportunities associated with various subjects.

### HOSPITALITY STUDIES AND CONSUMER STUDIES

**Hospitality studies** will equip learners with skills, knowledge, attitudes and values relating to real-world situations in the food and beverage industry.

**Consumer Studies** educates learners to be wise consumers by developing knowledge, skills and values to improve the quality of life experienced by individuals and communities.

- Restaurants
- Hotel management
- Food and beverage management
- Banqueting manager
- Chef
- Bartender/waitron
- Food technology
- Catering
- Consumer research

## ORGANISING FIELD: ARTS AND CULTURE

### DESIGN

Design is a creative, problem solving process that results in products that may be unique or intended for mass production, hand crafted or produced by mechanical/electronic means. Design opens up an exciting world of creative and personal exploration through participation in a range of design activities

Career opportunities:

- Graphic designer
- Industrial designer
- Architect
- Web site designer
- Fashion designer
- Digital designer
- Photographer
- Textile designer

### How can learners get advice on subject choices and career options?

The South African Qualifications Authority (SAQA) with the Departments of Higher Education and Training and Basic Education launched the NQF and Career Advice Service in January 2011 that has a website, a career advice help line, guidance materials, and a weekly radio programme in partnership with SABC Education that is broadcast on nine regional radio stations in nine languages.

Making decisions about your career does not have to be difficult. You should know what you enjoy doing and what careers appeal to you. Try a **Career Quiz** if you need some clarity. Once you have researched your career fields and identified your capabilities use the following steps to guide you in making an informed decision.

### Remember

If you want to go to University after you finished school, you will need to achieve at least a NSC with an achievement rating of 4 or better in at least four subjects chosen from the designated 20 credit NSC subjects listed below:

*Accounting, Agricultural Sciences, Business Studies, Dramatic Arts, Economics, Engineering Graphics and Design, Geography, History, Consumer Studies, Information Technology, Languages (refer to institution websites for their language entry requirements), Life Sciences, Mathematics, Mathematical Literacy, Music, Physical Sciences, Religion studies and Visual Arts.*

<b>COMPUTER APPLICATIONS TECHNOLOGY</b>	These subjects enable learners to use computers in social and economic environments, through the use of applications or software development, hardware, and how these apply to their daily lives.	<ul style="list-style-type: none"> <li>• Database designer</li> <li>• Computer technician</li> <li>• Software engineer</li> <li>• Computer engineer</li> <li>• Computer programmer</li> <li>• Network administrator</li> <li>• Web site designer</li> <li>• Systems analyst</li> <li>• Game developer</li> <li>• Communications engineer</li> <li>• IT help desk supporter</li> <li>• Multi-media designer</li> <li>• Data modeller</li> </ul>
<b>INFORMATION TECHNOLOGY</b>		
<b>LIFE SCIENCES</b>	Life sciences involves the study of life in a changing natural and human made environment. This systematic study involves critical inquiry, reflection and the understanding of concepts and processes and their application in society.	<ul style="list-style-type: none"> <li>• Marine biologist</li> <li>• Pharmacist</li> <li>• Actuarial scientist</li> <li>• Astrologer</li> <li>• Civil engineer</li> <li>• Electronics industry</li> <li>• Botanist</li> <li>• Nurse</li> <li>• Zoologist</li> <li>• Ecology</li> <li>• Horticulture</li> <li>• Physiologist</li> </ul>
<b>ORGANISING FIELD: SERVICES</b>		
<b>TOURISM</b>	<p>What is this subject about?</p> <p>Tourism involves the study of why people study and how to meet their needs. Learners will understand the related services in the tourism industry, and the various sectors, and the benefit tourism brings to the South African economy.</p>	<p>Examples of career opportunities:</p> <ul style="list-style-type: none"> <li>• Car hire companies</li> <li>• Event management</li> <li>• Government tourism departments</li> <li>• Tour operators</li> <li>• Travel agencies</li> <li>• Tourism marketing</li> <li>• Airline crew</li> <li>• Hotels/guesthouses/resorts</li> <li>• Product developer</li> </ul>

<b>ORGANISING FIELD: AGRICULTURAL STUDIES</b>		
<b>AGRICULTURAL MANAGEMENT PRACTICES</b>	In this subject you will study and learn how to apply economic and management principles that are used in the production, transformation and marketing of food and other agricultural products.	<p>Examples of Career opportunities:</p> <ul style="list-style-type: none"> <li>• Farm and ranch management</li> <li>• Marketing</li> <li>• Nature conservation</li> <li>• Agribanking</li> <li>• Horticulturist</li> <li>• Agricultural technician</li> <li>• Viticulturist (plant scientist)</li> <li>• Agricultural Engineer</li> <li>• Farmer</li> <li>• Educator</li> <li>• Landscape engineer</li> <li>• Agricultural engineer</li> </ul>
<b>AGRICULTURAL TECHNOLOGY</b>	This subject focuses on the technological processes used in agriculture.	
<b>AGRICULTURAL SCIENCES</b>	This is the study of the relationships between soil, plants and animals in the production of food, fibre and fuels.	
<b>ORGANISING FIELD: TECHNOLOGY</b>		
<b>CIVIL TECHNOLOGY</b>	<p>Civil technology gives learners the opportunity to:</p> <ul style="list-style-type: none"> <li>• Carry out practical simulations and real life projects</li> <li>• Solve practical problems in a Civil Technology context</li> <li>• Use and engage subject related knowledge in a purposeful way</li> <li>• Use a variety of life skills when working on projects</li> </ul>	<p>Examples of career opportunities:</p> <ul style="list-style-type: none"> <li>• Civil engineering</li> <li>• Material engineering</li> <li>• Architecture</li> <li>• Quantity surveying</li> <li>• Surveying</li> <li>• Draughting</li> <li>• Shop fitting</li> <li>• Cabinet making</li> <li>• Carpentry and Joinery</li> <li>• Plumbing</li> <li>• Bricklaying and plastering</li> </ul>
<b>ENGINEERING GRAPHICS AND DESIGN</b>	<p>Gives learners the opportunity to:</p> <ul style="list-style-type: none"> <li>• Communicate ideas graphically by using drawing instruments and computer-based tools.</li> <li>• Carry out projects using the design process</li> <li>• Learn by solving problems in creative ways</li> <li>• Learn by dealing directly with human rights and social and environmental issues in their project work.</li> </ul>	<ul style="list-style-type: none"> <li>• Architecture</li> <li>• Plan drawing</li> <li>• Graphic design</li> <li>• Electrical draughtsperson</li> <li>• Draughtsperson</li> <li>• Draughtsman</li> <li>• Designing (furniture, Automobiles, Aeronautics)</li> </ul>

<b>MECHANICAL TECHNOLOGY</b>	Mechanical Technology focuses on technical processes from conceptual design through the process of practical problem solving. The subject promotes the improvement of the different mechanically related processes, services, systems and the controls used in the production of goods and products in order to improve the quality of life.	<ul style="list-style-type: none"> <li>• Mechanical engineering</li> <li>• Aircraft technician</li> <li>• Automotive mechanic</li> <li>• Boilermaker</li> <li>• Earth-moving equipment mechanic</li> <li>• Fitter and turner</li> <li>• Welder</li> </ul>
<b>ELECTRICAL TECHNOLOGY</b>	Learner will carry out practical projects, experiments and real life tasks using a variety of processes and skills. The subject is organised to include: <ul style="list-style-type: none"> <li>• Technological process</li> <li>• Safety and health</li> <li>• Tooling and instrumentation</li> <li>• Generation and application of AC and DC</li> <li>• Protective and switching devices</li> <li>• Electrical, electronic and logic systems</li> </ul>	<ul style="list-style-type: none"> <li>• Electrician</li> <li>• Auto-electrician</li> <li>• Electrical fitter</li> <li>• Electrical or electronic engineer</li> <li>• Electrical draughtsperson</li> <li>• Electrical or electronic technician</li> <li>• Electrical or electronic technologist</li> <li>• Electrical mechanic</li> </ul>

**ORGANISING FIELD: COMPUTER, MATHEMATICAL, PHYSICAL AND LIFE SCIENCES**

<b>MATHEMATICS</b>  Most careers require a level of mathematical knowledge.  It is compulsory to do either Mathematics or Maths literacy for the National Senior Certificate.	Mathematics enables creative and logical reasoning about problems in the physical and social world and in the context of mathematics itself.	Examples of career opportunities: <ul style="list-style-type: none"> <li>• Teacher</li> <li>• Medical doctor</li> <li>• Physicist</li> <li>• Pharmacist</li> <li>• Actuarial scientist</li> <li>• Engineer</li> <li>• Astrologist</li> <li>• Astronomist</li> <li>• Technician</li> <li>• IT industry</li> <li>• Architect</li> <li>• Civil engineer</li> <li>• Electronics industry</li> <li>• Town planner</li> <li>• Pilot</li> </ul>
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<b>MATHEMATICAL LITERACY</b>  Most careers require a level of mathematical knowledge.  It is compulsory to do either Mathematics or Maths literacy for the National Senior Certificate	Mathematic Literacy provides learners with an awareness and understanding of the role that mathematics plays in the world and focuses on real life applications of mathematics. It enables learners to develop the ability and confidence to think numerically and spatially in order to interpret and analyse everyday situations and solve problems.	<ul style="list-style-type: none"> <li>• Teacher</li> <li>• Bricklayer</li> <li>• Welder</li> <li>• Plumber</li> <li>• Computer programmer</li> <li>• Bookkeeper</li> <li>• Sales executive</li> <li>• Journalist</li> <li>• Social worker</li> <li>• Chef</li> <li>• Business manager</li> <li>• Ceramacist</li> <li>• Fashion designer</li> <li>• Caterer</li> </ul>
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<b>PHYSICAL SCIENCES</b>	This subject allows learners to investigate physical and chemical phenomena through scientific inquiry. By applying scientific models, theories and laws it seeks to explain and predict events in our physical environment. This subject also deals with society's desire to understand how the physical environment works, how to benefit from it and how to care for it responsibly	<ul style="list-style-type: none"> <li>• Teacher</li> <li>• Medical doctor</li> <li>• Zoologist</li> <li>• Pharmacist</li> <li>• Actuarial scientist</li> <li>• Engineer</li> <li>• Astrologist</li> <li>• Astronomist</li> <li>• Technician</li> <li>• IT industry</li> <li>• Architect</li> <li>• Land surveyor</li> <li>• Civil engineer</li> <li>• Physiotherapist</li> <li>• Biologist</li> <li>• Town planner</li> <li>• Physicist</li> <li>• Dentist</li> <li>• Aeronautical engineer</li> <li>• Chemist</li> </ul>
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