Stanford Lake College


## SUBJECT CHOICE

GRADE 102025

## ACADEMIC INFORMATION

This booklet has been compiled to give you information regarding the subjects we offer for Grade 10 onwards. Please feel free to communicate with Mr Norton (gnorton@slc.co.za) if you would like more information relating to the subjects on offer at the FET level.

We have some general information relating to subject choices, pass requirements for the National Senior Certificate and entrance requirements for tertiary institutions.

| Compulsory Subjects | Elective Subjects |
| :--- | :--- |
| English Home Language | Accounting |
| Afrikaans First Additional Home <br> Language (FAL) OR Sepedi (FAL) | Business Studies |
| Mathematics OR <br> Mathematical Literacy | Computer Applications Technology <br> (CAT) |
| Life Orientation | Geography |
|  | History |
|  | Information Technology (IT) |
|  | Life Sciences |
|  | Physical Sciences |
|  | Visual Arts |

There are four compulsory subjects:

- English Home Language
- Life Orientation
- Afrikaans FAL (First Additional Language) OR Sepedi (First Additional Language) (for South African citizens)
- Mathematics OR Mathematical Literacy


## SA citizens

A South African citizen will need to choose Afrikaans in one of the two groups in which it is listed. Thereafter, a further three subjects from the predetermined subject packages i.e. one subject from each of the remaining three groups after he / she has chosen the group in which he / she would like to take Afrikaans or Sepedi.

## Immigrants

An immigrant will need to choose four subjects to add to the compulsory English Home Language, Life Orientation and then Mathematics / Mathematical Literacy. So one subject from each of the four groups.

Mathematical Literacy is available as an option in Grade 10.
Any pupil who wishes to take Physical Sciences or Accounting, must be competent in Mathematics.

NB: Any pupil who opts for Mathematical Literacy, or who has failed Mathematics and therefore has to take Mathematical Literacy, will not be allowed to take Physical Sciences. This is a directive from the Department of Basic Education and the IEB has to follow this directive.

Minimum requirements for a National Senior Certificate pass (this does not gain a pupil entry into an institution of higher learning):

- 40\% in English Home Language
- $40 \%$ in 2 other subjects
- $30 \%$ in 3 other subjects
- A pupil may 'fail' 1 subject as long as there is a portfolio of assessment for that subject.

Minimum requirements for entry into Degree courses at institutions of higher learning:

- $50 \%$ in ANY FOUR subjects from the designated subject list.
- Pass English at 40\% OR MORE
- Pass two other subjects at a minimum of $30 \%$ or more
- Meet the language requirement for entry to further study which is:
- One of the two official languages offered by the learner must be either English or Afrikaans. To meet the language criterion to qualify for entry to study at a tertiary institution, the learner must pass either English or Afrikaans at the First Additional Language level (i.e. 30\% or more)

Life Orientation does not contribute to entry into university, but does contribute to a student's final Matric aggregate.

An explanation of what each subject choice offers is included on the next pages.

## SUBJECT EXPLANATIONS

ACCOUNTING

Accounting focuses on processing and communicating financial information. It deals with logical, systematic and accurate selection of recording financial information as well as analysing and interpreting financial and managerial reports. Accounting ensures that principles such as ethical behavior, transparency and accountability are adhered to.

It embraces the following features:

- Financial accounting - includes the logical, systematic and accurate recording of financial transactions as well as the analysis, interpretation and communication of financial statements by understanding the fundamental concepts regarding basic accounting principles and practice.
- Managerial accounting - includes concepts such as costing and budgeting. It emphasises the analysis, interpretation and communication of financial and managerial information for decision-making purposes.
- Tools in managing resources - includes basic internal controls and internal audit processes and code of ethics. These features emphasise the knowledge, understanding and adherence to ethics in pursuit of human dignity, acknowledging human rights, values and equity, in financial and managerial activities.

Other topics covered between Grade 10 and 12 include indigenous bookkeeping, ethics, GAAP principles, bookkeeping of a sole trader, partnership and companies, calculating VAT payable to/or receivable by SARS. By Grade 12, learners are able to analyse and interpret real-world financial results of public companies listed on the JSE.

Accounting is a demanding and challenging subject and learners should be ready to work from day one of Grade 10 as this forms the critical foundation for the subjects in Grade 11 and Grade 12. Students must enjoy working with figures, doing repetitive work and logical thinking. They also need to be able to problem-solve.

We look at their Mathematics results, purely to identify whether the students have an aptitude for the above. If students struggle with Mathematics in Grade 9 , they will probably struggle in doing the extended work in Accounting. The problems do require the same logical, lateral thinking and problem-solving skills used in Mathematics.

## FURTHER STUDIES (FS) ENGLISH

Further Studies English is an extension of the NSC English Home Language. It provides students who have significant enthusiasm for English Home Language with the opportunity to increase their knowledge, skills, values and attitudes in English and to extend themselves by engaging with challenging poetry, novels and films which will enable them to respond to literature in its broadest context. Further Studies English has also been shown to significantly improve the essay writing skills of its students in English Home Language. This course is for pupils who love literature and who savor the English language. It can have a significant impact on students who are looking at studying further in the faculties of Humanities, Linguistics, Education and Law, to name a few.

## FURTHER STUDIES (FS) MATHEMATICS

Further Studies Mathematics is valuable in the curriculum of any pupil who intends to pursue a career in the physical, mathematical, financial, computer, life, earth, space and environmental sciences or in technology.

The pupils study a compulsory Calculus and Algebra module, and an elective module - Statistics and Probability.

Only pupils who achieve $75 \%$ or more in Grade 9 will be allowed to take Further Studies Mathematics in Grade 10.

## AFRIKAANS FIRST ADDITIONAL LANGUAGE

The subject consists of two main components:

- Oral work including writing and presenting speeches, listening, group discussions, group reading etc.
- Written work including creative writing, transactional writing, grammar, poetry, literature, summarising, comprehensions

It is important that students work on and develop their conversational Afrikaans skills themselves. This is very important in the FET phase as we must focus primarily on the syllabus and so do not have time to recap basics such as vocabulary.

The value in any additional language is that it opens a new world and perspective to the students. "If you understand another man's language you understand the soul of that man". As Afrikaans is used by so many South Africans within so many spheres of South Africa it is wise to school yourself in the language. It is also valuable for postgraduates who are busy with research as many academical and scientific publications are available in Afrikaans or Dutch. A fluent understanding of Afrikaans also enables students to read and understand Dutch.

At Stanford, we work hard to present the subject in an enjoyable way and in doing so we hope to win the students' goodwill for Afrikaans.

## Objective

To expose students to a general introduction to some of the issues they are likely to come across in further studies of business and financial management, and also to provide a global perspective of how businesses operate.

## Syllabus/material covered

The 3 environments that a business is part of: macro, market, micro.

- Business functions
- Strategic thinking
- Risk management
- Insurance
- Problem solving
- Conflict resolutions
- Industrial relations
- Corporate social responsibility and applicable legislature
- Professionalism and Ethics
- Leadership and Entrepreneurship
- Investment opportunities

Economic issues in broad terms - current economic and political developments, as part of the macro context; disruptive technologies influencing the way business is run and skills for the 4th industrial revolution.

## Links with other subjects

Data analysis: Maths Lit
News articles: English comprehension
Presentations, projects, reports: Natural Sciences, History, Geography.

## Who should choose Business Studies:

Those intending to study a general commercial degree, commercial law degree. Those intending to run their own business.
Persons interested in current affairs and their impact on the country's economy. Those interested in growing their personal wealth.

# COMPUTER APPLICATIONS TECHNOLOGY (CAT) 

In the last decades, computers have become a normal part of life. They are used to send e-mails, write reports, manage our finances, or just to surf the internet. CAT is the study of the components of a computer system and how to use it to solve everyday problems. It will prepare you for life in the technological world. This is a very practical, skills-based subject which will help you in tertiary studies, and the workplace.

Computer Applications Technology aims at developing computing skills in the following packages: Word, Excel, Access, Explorer, Outlook and Power Point and basic HTML (webpage). Learners will be able to use the Internet, and understand the role that it plays, find relevant information, process it, make decisions, and learn how to use ICTs responsibly. A fairly high level of competency is expected.

## Curriculum

- Solution Development
- Systems Technologies
- Network Technologies
- Internet Technologies
- Information Management
- Social Implications


## Careers

Computers are used widely in many careers. The ability to use computer applications efficiently is a distinct advantage in many fields. Although CAT is not a compulsory subject for any particular field of study, this subject does provide a range of basic skills useful in the field of Information Technology should you wish to study in this field further one day.

## Should I take this subject

If you enjoy working with computers and their many applications, then CAT is a good subject to take. The great advantage of this subject is that it provides skills that can be applied immediately in the classroom and the workplace. Like all Matric subjects, CAT will require consistent application and hard work.

## Requirements for the subject:

- A working laptop or desktop computer with a Windows Operating System (Win10 or newer), and a copy of the Office 2019 Software Suite or newer.
- Internet connectivitiy to connect to Google Classroom while not in class / on campus.


## ENGLISH HOME LANGUAGE

English Home Language is a more challenging subject than it initially appears to be. Whilst it is a core subject for Grades $10-12$, it is so much more than that in the sense that it is the foundation for all forms of tertiary study, including other languages. A sound command of the English language will enable students to successfully unpack tests, tasks and assignments across all subjects. Whilst a large part of the syllabus focuses on literature (including poetry, novels, plays and film), a solid understanding of language and grammar is also taught as is creative writing and oral work. This is a gateway subject. Pupils are inspired to see English not as boring words in a dusty textbook but as a living language, reflecting our past but also capturing the issues and inspirations of our modern world.

## GEOGRAPHY

As a subject, it is extremely relevant to all aspects of life and it is a subject that is practical as all that you are taught can be experienced in most everyday life.

All of life is Geography and Geography is all about life.
Geography is divided up into various sections:
Physical Geography - Climatology, weather, clouds, storms, hurricanes, tornadoes etc. Geomorphology - rock structure, formation and landforms/ features which result in earthquakes, volcanoes, tsunamis, etc.

Settlement urban and rural - patterns, problems and solutions
Ecology - ecosystems, webs, pyramids, chains, soil profile etc.
Economic Geography - The economy of countries, trade, economic development

South Africa - application of the above to the South African situation.
Population Geography - people and places, births, deaths, infant mortality rates etc.

Map work and GIS - GIS is a new section added to the syllabus and a new career option. Map work is covered from Grade 10-12.

The pupil who likes the outdoors and would like to work outdoors in the future and who is curious about the why and how of the earth around them should do this subject. We try to do fieldwork and spend some time out of the classroom and on excursions.

There is a fair amount of work, but it is so relevant making it "user-friendly." The amount of general knowledge that you gain is immense and, as a practical subject, you will always use this information in the future.

When selecting Geography as a subject, you can choose a science package with Geography, Physical Sciences and Life Sciences. Alternately, it can be combined with Business Studies to be more a business-orientated course or with History for a Humanities course.

Careers available include climatologist, town planner, environmental careers, GIS, geologists and many more.

## HISTORY

The History syllabus in the senior phase tracks the story of the world from the mid-15th Century up to the current day wherein we analyse the concept and ideas behind globalisation and what it means to be a part of the globalised world. History requires and develops a variety of skills; some of which are source-analysis skills and essay-writing skills.

Although History deals with content, the new approach to the subject is skills based. Thus, History is accessible to all. An interest in politics and political life and a good general knowledge are helpful skills to have for this subject.

Research skills are strongly developed in this subject and pupils will be able to move into various tertiary institutions with a good idea of how research is conducted and how to access the relevant information. Some of the projects done in past years by the historians included making historical board games, designing power points and designing web pages concerning a historical figure.

By the end of their time at Stanford, our historians will have an in-depth knowledge of how the world around them was created and the role that each historical event contributed to their lives today. Moreover, they will be functionally and historically literate. Ultimately, in which other subject can you learn about people and analyse their actions?

##  <br> INFORMATION TECHNOLOGY <br> (IT)

Coding or programming is the process of creating instructions for computers using programming languages which is the core of the subject. Alongside the coding, the mechanics and working of computers are understood. All of these new skills are learned through problem-solving and making use of logic.

The subject consist of two parts: theory and practical.
At Stanford, the practical part is taught through Java and SQL which includes basic programming skills, object-orientated programming and data-handling techniques.

The theory includes the hardware and software workings of a PC, network and communication technology and the impact of all technologies on society.

## Requirements for the subject:

- It is advisable to have at least $60 \%$ for Mathematics.
- A working laptop or desktop computer with a Windows Operating System, and the ability to connect to the internet.
- Access to WiFi.

IT is not a prerequisite for tertiary studies, however, if you want to go into the following fields, it is recommended:

- Gaming or software developer
- Engineering e.g. electrical or computer engineer
- Data mining e.g. forensic accounting and actuarial sciences
- Data Science
- Cloud computing
- Security and data protection

Life Orientation has changed and adapted since the subject was first included in the South African school curriculum. The focus today is on having the right skills and depth of understanding to tackle and respond to issues personally, with in your immediate family, friend group and within the broader community.

The Life Orientation curriculum supports community involvement, and students are expected to do a minimum of twenty hours service between Grade 10 and the beginning of Grade 12. This is then supported with reflective writing, which aims to stimulate further community responsibility.

The subject aims to give learners a sound foundation, not only through discovering themselves and their surroundings, but also to cultivate thorough critical thinking and develop character. It gives every student the opportunity to go on a personal journey of discovery and growth in order to become successful contributors to society as well as life long learners.

## LIFE SCIENCES <br> (Biology)

Successful Life Sciences' students must be passionate about the subject and the more reading around the subject, the better. The subject explores various areas of sciences, as outlined below. The syllabus provides an exciting platform for young scientists to learn skills and scientific concepts that are essential for various scientific degrees.

The following are the broad areas of study that will be covered in Life Sciences.

- Life at molecular, cellular and tissue level
- Diversity, change and continuity of life
- Environmental studies
- Life processes in plants and animals

There is a large volume of content, however, less emphasis is placed on remembering facts and more emphasis is placed on understanding biological concepts and applying your knowledge to real life and current research/findings e.g. students will be expected to read and interpret graphs and tables and apply concepts they have learnt in class to other relevant examples.

Practical demonstrations and experiments are a feature of Life Sciences and pupils are assessed on this as part of their portfolio tasks as well as in one of their final exams. Observing, drawing, collecting data, performing experiments and independent research are some of the skills you must be comfortable with.

## MATHEMATICS

Core Mathematics is a very challenging subject which requires a good knowledge and a thorough understanding of all topics covered in Grade 9 in order to cope with the demands and to achieve good results in Grades 10, 11 and 12. Therefore, it is strongly advised that a student who is achieving $40 \%$ or less in Grade 9 choose Mathematical Literacy instead of Core Mathematics.

## MATHEMATICAL LITERACY

In Mathematical Literacy, we teach skills more than content. Most of the skills revolve around the day-to-day workings of Mathematics.

Mathematical Literacy is divided into four sections which are completely different from the Core Mathematics syllabus. It is therefore incorrect to suppose that by continuing with Core Mathematics in Grade 10 and/or 11 for as long as possible that a student is in a better position to cope with Mathematical Literacy should they change later.

SECTION 1 Numbers and Operations
Conversion - changing of units (metres to kilometres, grams to tonnes, Rands to pounds, temperature etc.)
Working with money - types of bank accounts, their advantages and disadvantages, personal loans and bonds, tax, personal budgets, running a business, electricity and water bills, cell phone contracts etc.

SECTION 2 Functional Relationships
Graphs - interpretation, analysing and drawing of graphs
SECTION 3 Geometry
Different types of shapes
Measurement
Calculating Area, Perimeter and Volume (e.g. capacity of a reservoir)
Calculations and requirements for painting a house
SECTION 4 Data handling and probability
Maps, scales and models

## PHYSICAL SCIENCES

(Physics \& Chemistry)

Physics make things possible!
Physical Sciences is a relevant subject with numerous applications in your everyday life. Whether you bake a cake, hang a painting or riding your bicycle, you are busy with scientific concepts.

Physical Sciences consist of Chemistry and Physics. Some topics that will be dealt with in Physics include mechanics, waves and electricity and magnetism. Topics in Chemistry include chemical bonding, intermolecular forces, stoichiometry, organic chemistry, acids and bases and electrochemistry.

A significant part of the work is somewhat abstract, especially in Chemistry. Physics, mainly, relies heavily on mathematical skills. Therefore, it is essential to note that Mathematics is required as a subject if you take Physical Sciences.

Both Physics and Chemistry have practical components that form an integral part of the subject. If you are curious and a critical thinker, this is the subject for you! It will teach you essential analytical problem-solving skills.

The real value of taking Physical Sciences at school is that it is needed for many career-specific courses. It is compulsory for all engineering and medical courses but is also essential for technical training.

The subject requires a diligent work ethic and excellent time-management. It will not only teach you scientific skills but also valuable life lessons.

## SEPEDI FIRST ADDITIONAL LANGUAGE

Sepedi is a new addition to the Stanford Lake College subject choice options, and covers mainly grammar and literature. The language is presented in such a way that a student will become familiar with new grammar and vocabulary which, in turn, will enable the student to apply it contextually.

Competence in one's mother tongue goes beyond mere academic development and adds value beyond the classroom. Sepedi as a first additional language will assist students to have deeper and more meaningful conversations which will allow them to embrace and identify with their culture as well as with their own people. In addition to this, proficiency in Sepedi will be beneficial in the corporate world where the diversity and bilingualism will add a competitive advantage to any application for employment. Professionals who are fluent in more than one language are more creative and flexible as they are more open-minded and are easy multi-taskers. It is for this reason that they are sought after by most companies.

Learning Sepedi as a first additional language is therefore extremely beneficial and adds great value to a student who learns it.

## $\because$ <br> VISUAL ARTS

Visual arts is a wonderful avenue for the creative student. It creates a space for the student to develop their artistic skills, while exploring varied mediums. An art student must have passion for art.

Conceptualising: the learner can explore, develop and realise creative processes and ideas in response to both externally-set and self-generated concepts, drawing on own experience and knowledge of visual culture past and present. This is explored in the Visual Journal through sketching, planning, brainstorming and contextual research. This is an important part of their practical work.

Creating: the learner can explore and manipulate materials, techniques, processes and technologies in making imaginative and innovative artworks through personal ideas and expression. In grade 10 the learner will work in a range of different mediums from pencil, charcoal, paint and clay sculpture. This allows the learner to find a medium that suits their creative style. This process explores critical and creative thinking.

Management and Presentation: the learner has to effectively manage their own working process and own personal and professional development within the visual arts field. This is realised through setting up exhibitions and working in a professional manner to display the work.

Visual culture studies: the learner can demonstrate knowledge, skills, attitudes, values and artistic ability acquired through the study of the diverse roles and functions of visual arts in contemporary life and in different periods of time (art history) and cultures.

Visual Arts theory in Grade 10 covers Prehistoric Art up to and including Renaissance and Rococo. Visual Arts theory also includes visual literacy: how to formally analyse and read paintings.

Students interested in choosing Visual Arts as a subject should have basic drawing skills in perceptual drawing (drawing from life). They would also need to be able to cope with the high demanding work volume required in the sections; History of Art, Visual Journal work and Contextual Research. This subject requires the learner to work independently in their free time.

Career choices include Fine Art, Interior design, Fashion \& fashion accessories, Industrial design, Advertising, Architecture, Fabric and textile design, Teaching, Furniture \& Product Design, Publishing \& Graphic Design, Ceramics and Jewellery.



