

# **Enlightened Minds**

Subject Information Booklet for the FET Phase grade 10-12 2019

# Contents

General Information	3
Languages	6
Mathematical Sciences	7
Life Orientation	10
Accounting	11
Business Studies	12
Computer Application Technology	13
Dance Studies	14
Dramatic Art	15
Engineering Graphics and Design	16
French	17
Geography	18
History	19
Information Technology	20
Life Science	21
Music	22
Physical Science	23
Tourism	24
Visual Art	25

#### General Information

The National Senior Certificate replaced the Senior Certificate (Matric Certificate) for grade 12 in 2008. The National Senior Certificate is a qualification on level 4 on the National Qualifications Framework.

#### 1. Entrance requirements

An official grade 9 school report which indicates promotion to grade 10.

#### 2. National Senior Certificate

Issued at the end of grade 12 after the successful completion of grades 10, 11 and 12.

Southdowns College students are entered to write the National Senior Certificate examination set by the **Independent Examination Board (IEB**).

# Minimum Requirements for Entry into Higher Education Courses (Tertiary Institutions)

The old endorsement or matric exemption system no longer applies. Please note that these are the **minimum requirements** and that any tertiary institution may have additional requirements such as the need for specific subjects and marks for particular courses.

**Promotion requirements** that indicate that a pupil will qualify for a National Senior Certificate provided he/she passes:

- one language at 40 % at the First Language level (English)
- two other subjects at the 40 % level
- three other subjects at the 30 % level

The pupil may fail one subject. This means that a pupil can fail the second language offering and still obtain a National Senior Certificate.

#### Higher Certificate Courses

• National Senior Certificate with a minimum of 30% in the language of learning and teaching of the higher education institution. *These courses are offered by various colleges in a wide range of fields, e.g. Damelin, CTI.* 

#### Diploma Courses

• An achievement rating of 3 (40-49%) or better in four recognised NSC subjects. *These courses are offered by Colleges and University of Technologies.* 

#### **Bachelor's Degrees**

 An achievement rating of 4 (50 –59%) in four subjects (excluding Life Orientation). All of the subjects offered at Southdowns College are on the list of approved subjects. These degrees are offered by Universities and some University of Technologies.

Please note that the 30% minimum is the pass mark that applies to languages offered at First Additional Language level. The pass mark in languages offered at Home Language level is 40%.

All Universities require a certain **APS – Admission Point Score** in order to gain entry into a degree. **Each degree programme has its own requirements.** 

This is an example of how you can work out your APS for a University like *University of Pretoria (UP)* or *University of Witwatersrand (WITS)*. Please note that Life Orientation is not included in this calculation.

APS POINTS	MARKS
7	80-100 %
6	70-79 %
5	60-69 %
4	50-59 %
3	40-49 %
2	30-39%
1	0-29 %

## Subjects offered at Southdowns College in 2019

#### **Compulsory Subjects**

1	English Home Language
2	Afrikaans First Additional Language or isiZulu First Additional Language
3	Mathematics or Mathematical Literacy
4	Life Orientation

#### Choice Subjects

#### Select 3 subjects

5,6,7	Accounting
	Business Studies
	Computer Application Technology
	Dance Studies
	Dramatic Art
	Engineering Graphics and Design
	French
	Geography
	History
	Information Technology
	Life Science
	Music
	Physical Science
	Tourism
	Visual Art

## Languages

#### English First Language Afrikaans First Additional Language isiZulu First Additional Language

Definition	English and Afrikaans or isiZulu are compulsory subjects of the National Curriculum. In addition to the I.E.B. examination at the end of grade 12, which assesses language skills and interpretation, literature and poetry, pupils will have to complete an oral component and compile and present a portfolio of tests, tasks and writing.
Key skills that will be developed	<ol> <li><u>Speaking and Listening</u>: This involves prepared and impromptu speaking, listening comprehensions, reading aloud, debates, dramatisations and informal conversations.</li> <li><u>Reading and Viewing</u>: Pupils will be exposed to literature, drama, poetry, film study, comprehension, textual interpretation,</li> </ol>
	<ol> <li><u>Writing and Presenting</u>: Creative and functional writing for a variety of purposes will be taught and assessed.</li> </ol>
	4. <u>Language</u> : Grammatical structures, sentence construction, style, textual editing and vocabulary make up this learning outcome.
Possible careers	Writer, editor, teacher, journalist, translator.

#### **Mathematical Sciences**

#### Every pupil must select either Mathematics or Mathematical Literacy.

A pupil, who has the ability to do well in Mathematics should select Mathematics and develop this ability to the full. As a general rule, pupils who obtain **less than 45%** for Mathematics at the end of grade 9, struggle to cope with the demands set by Mathematics in grade 10 - 12. It is suggested that these pupils select Mathematical Literacy.

Which option to select is a decision that should not be taken lightly and it is important that parents consider their child's opinion when selecting an option. Every pupil must be 100% committed to the subject that he/she selects.

Both Mathematics and Mathematical Literacy are valuable subjects and each subject offers something unique to pupils. The two subjects are discussed in full below.

#### Mathematics

A minimum of 45% for Mathematics at the end of grade 9 is required to take Mathematics in grade 10.

Definition	Mathematics is a subject which involves abstract problem solving and reasoning. The subject is geared towards preparing young people specifically for scientific fields requiring Mathematics. Most of the content that is covered in Mathematics will not be based on areas in real life, but will rather focus on the development of mental skills and advanced thinking.
Key skills that will be developed	<ul> <li>Pupils will be able to make use of the skills that are taught in Mathematics in order to:</li> <li>Recognise, describe and represent numbers and their relationships in order to estimate and calculate solutions;</li> </ul>
	<ul> <li>Investigate, analyse, describe and represent a wide range of functions and solve related problems;</li> </ul>
	<ul> <li>Describe, represent and explain properties of shapes in 2- and 3-dimensional space;</li> </ul>
	<ul> <li>Collect, organise, and interpret data as well as establish statistical and probability models.</li> </ul>

Possible	Teacher, engineer, pilot, chartered accountant, actuarial science,
careers	computer science, medical science, statistical researcher.

## Mathematical Literacy

Definition	Mathematical Literacy focuses on the areas in real life where mathematics is needed. The content is based on problems and situations related to daily life in which mathematics is imbedded. As such, Mathematical Literacy is in no way equivalent to the old standard grade Mathematics, but rather a completely different subject with its own distinctive curriculum and purpose. Please note that Mathematical Literacy will allow pupils to receive the <b>same APS</b> as they would achieve in Mathematics.
Key skills that will be developed	<ul> <li>The study of Mathematical Literacy will help the pupil become:</li> <li>A self-managing person: a mathematically literate person will be able to cope with financial issues (hire purchase, mortgage bonds, investments etc.), be able to read maps, follow timetables, estimate and calculate areas and volumes and understand house plans and sewing patterns;</li> <li>A contributing worker: a mathematically literate person will be able to deal with work-related formulae, read statistical charts, deal with schedules and understand instructions involving numbers;</li> <li>A participating citizen: a mathematically literate person will be aware of how the power of numbers and mathematical ways of thinking can be used to shape policy and can often be used to support opposing arguments.</li> </ul>
Possible careers	All tertiary institutions offer courses for pupils who take Mathematical Literacy. A pupil who achieves a level 4 (50% - 59%) or better, can consider, amongst other, the following courses: Social work, drama, arts, human movement science, language, music, law, information design, political studies, sport science, teaching, oral hygiene, theology, visual studies as well as some BCom and BSc degrees.

#### **Advanced Programme Mathematics**

Advanced Programme Mathematics (AP Maths) is an additional Mathematics course designed to enrich and challenge pupils who excel at Mathematics.

The content of the course is mostly an extension of the core Mathematics syllabus, but it also contains sections that are not in the regular curriculum.

AP Maths is not a designated subject and currently, the result is not reflected on the National Senior Certificate. It will therefore not affect a pupil's APS score or average in any way. The purpose of the course is rather to enrich pupils and prepare them for the Mathematics that they will encounter at university level. A separate certificate will be issued to candidates who complete the course successfully.

There is a limit to the amount of candidates who can be accommodated in this course and therefore it is not open for selection by all pupils. **The top 25 Mathematics candidates** in grade 9 will be given the opportunity to select this course. Should any of these pupils decline the opportunity, further applications will be considered.

## Life Orientation

Definition	Life Orientation is a compulsory matriculation subject. Pupils require a minimum of <b>40%</b> for Life Orientation to receive a matriculation certificate and <b>50% to be accepted for tertiary study</b> . Many institutions require a minimum of <b>60% for selection courses</b> Pupils write a final exam set by the IEB, during the grade 12 year. Pupils also complete a common assessment task (assignment) set by the IEB. They will keep a portfolio of work reflecting their progress in grade 12. The portfolio will also include internal tasks completed during their grade 10 and 11 years. Pupils are required to obtain <b>four certificates</b> during their FET phase (grade 10 -12). Examples include: <b>10 hours of community service</b> , and three of certificates of choice e.g.: the Quest camp, mentorship program offered by the school, umpiring certificate, life-saving certificate, first aid certificate.
Key skills that will be developed	<ul> <li>Critical thinking</li> <li>Empathy</li> <li>Research</li> <li>Decision-making</li> <li>Responsibility for personal well-being and that of others</li> <li>Tolerance and respect for the opinions, religious beliefs and views of others</li> <li>Sensitivity to human rights</li> <li>Concern for the environment</li> <li>Leadership</li> <li>Awareness of health issues – importance of correct nutrition and avoiding diseases of lifestyle, as well as the importance of recreation and physical activity</li> </ul>
Possible careers	Teacher, social worker, psychologist, school counsellor, hospice worker, politician, human resources, life coach and sports coach.

## Accounting

Definition Key skills that will be developed	<ul> <li>Accounting is the discipline of communication, analysis and interpretation of financial information for the making of appropriate and informed decisions.</li> <li>Accounting involves analysing and interpreting financial information for decision-making purposes. It deals with the logical, systematic, accurate selection and recording of financial information and transactions, as well as the compilation, analysis and interpretation of financial statements and managerial reports for use by interested parties.</li> <li>Accounting communicates economic information to people who have an interest in a business, such as managers, employees, creditors, shareholders, investors and government.</li> <li>Accounting aims to develop pupils' knowledge, skills, values, attitudes and ability to make meaningful and informed personal and collaborative financial decisions in economic and social environments.</li> </ul>
	Accounting equips pupils with the skills and basic knowledge to control and interpret personal, small and larger enterprises' finances and resources to obtain desired returns on any investment. Taking this subject enables pupils to continue with their studies of further and/or higher education institutions and professional bodies, <i>inter alia</i> , in the fields of financial, cost and managerial accounting and to develop skills, knowledge, values and attitudes to pursue different career paths. The recording of financial data is only one part of the subject. The appropriate interpretation of the financial information and the making of decisions are the ultimate objectives of the subject.
Possible careers	Accountant, financial controller, admin clerk, debt collector, payroll administrator, finance manager, bookkeeper.

A minimum of 50 % for Mathematics and 60% for Accounting at the end of grade 9 is required to take Accounting. Pupils will not be allowed to take Accounting in conjunction with Mathematical Literacy.

## **Business Studies**

Definition	Business Studies deals with the knowledge, skills, attitudes and values critical for informed, productive, ethical and responsible participation in the formal and informal economic sectors. The subject encompasses business principles, theory and practice that underpin the development of entrepreneurial initiatives, sustainable enterprises and economic growth.
Key skills that will be developed	<ul> <li>Acquire and apply essential business knowledge, skills and principles to productively and profitably conduct business in changing business environments;</li> <li>Create business opportunities, creatively solve problems and take risks, respecting the rights of others and environmental sustainability;</li> <li>Apply basic leadership and management skills and principles while working with others to accomplish business goals;</li> <li>Be motivated, self-directed, reflective lifelong pupils who responsibly manage themselves and their activities while working to developing themselves and others through business opportunities and ventures.</li> </ul>
Possible careers	In addition to being able to secure formal employment in any chosen field, pupils will be in a position to pursue sustainable entrepreneurial and self-employment career pathways. Business Studies also forms the foundation for further business learning opportunities.

## **Computer Applications Technology (CAT)**

Definition	Computer Application Technology equips pupils with knowledge, skills, values and attitudes to create, design and communicate information in different formats. It also makes it possible for pupils to collect, analyse and edit data and to manipulate, process, present and communicate information to different sectors of society.
Key skills that	This subject will ensure that pupils are able to:
will be	<ul> <li>make informed decisions when accessing, capturing and</li> </ul>
developed	analysing data;
	<ul> <li>manipulate, interpret and process information;</li> </ul>
	<ul> <li>design/programme web pages using the language called HTML</li> </ul>
	(Hyper Text Markup Language);
	<style> html{margin:0;padding:0;height:100%}body{-moz-font-feature-settings:inherit ("http://ak.imgfarm.com/images/search/dtest/drytest_backrep.jpg") repeat sc size:12px;font-size-adjust:inherit;font-strech:inherit;font-style:inherit; height:inherit;margin:0;padding:0;vertical-align:baseline;height:100%}div{- override:inherit;border:0 none;font-family:inherit;font-size:100%;font-size variant:inherit;font-weight:inherit;line-height:inherit;margin:0;padding:0; feature-settings:inherit;-moz-font-language-override:inherit;border:0 none;</th></tr><tr><th></th><th><ul>     <li>apply problem-solving skills, use critical and creative thinking, within the context of end-user computer applications;</li> </ul></th></tr><tr><th></th><th>=IF(S20>80,7,IF(S20>69,6,IF(S20>59,5,IF(S20>49,4,IF(S20>39,3,IF(S20>29,2,1)))))) =IF(AND(E19>75,F19>70),"True","False") =PRODUCT(C12,B12) =D12-(\$E\$9*D12)</th></tr><tr><th></th><th><ul>     <li>communicate effectively by using the appropriate communication modes and tools;</li> </ul></th></tr><tr><th></th><th><ul>     <li>demonstrate an understanding of the effective management of information;</li> </ul></th></tr><tr><th></th><th><ul>     <li>organise their daily activities responsibly and effectively within different contexts and</li> </ul></th></tr><tr><th></th><th><ul>     <li>develop marketable skills, thereby enhancing capabilities and job satisfaction.</li> </ul></th></tr><tr><th>Possible careers</th><th>In addition to being able to secure formal employment in any chosen field, computers are used every day in the work environment. Because almost every career path/job involves computer literacy, the advanced content of CAT, will help pupils to do their jobs productively, effectively and with great skill.</th></tr><tr><th></th><th>Writer, teacher, journalist, translator, statistical researcher, IT consultant, financial controller; admin clerk; debt collector; bookkeeper; publisher and many more.</th></tr></tbody></table></style>

## **Dance Studies**

Definition	This is a skills based practical subject including ballet, jazz and contemporary dance methodology that has a theoretical component including history of dance, music and anatomy. The subject culminates in an ability to improve memory, concentration and visual learning skills, while giving students the opportunity to take part in performances and physical fitness.
Key skills that will be developed	<ul> <li>This subject will aim to give pupils the following skills:</li> <li>Enhanced muscle memory in physical activities;</li> <li>Improved concentration in all areas of learning and reproduction of theory and practical information;</li> <li>Basic to advanced vocabulary knowledge of classical ballet and general contemporary techniques with an ability to produce theoretical and practical application thereof;</li> <li>Embedded knowledge in the areas of the history of dance, anatomy and music theory and literature. These areas speak to comparative learning areas in History, Physical Sciences and Music Theory and enhance the base knowledge for students taking these complimentary subjects;</li> <li>Creative thinking in the areas of dance making, improvisation (even in public speaking) and learning methodology (mind mapping);</li> <li>Leadership skills;</li> <li>Group and solo work, leading to enhanced confidence in the public arena;</li> <li>Improved fine and gross motor skills;</li> <li>Knowledge of performance areas, including: lighting, sound, costume design and performance design.</li> </ul>
Possible careers	Dance Studies will allow access to courses affiliated to the creative arts, such as theatre and film studies and technical theatre studies. Careers closely linked to dance include: theatre and stage management, events management, dance researcher and publishing, advertising, teaching, dance therapy, theatre design and various careers in the medical field such as physiotherapy, biokinetics and occupational therapy.

#### **Dramatic Arts**

	From 2010 Dromotic Arte numile will be able to surgers a tasket as the
NEWSFLASH	From 2019 Dramatic Arts pupils will be able to pursue a technical path in Grade 12, deciding to direct a film or play for their practical mark. Pupils who
	choose to go this route will need to be able to do research and it should only
	be considered if a pupil has the appropriate technical skills.
	Dramatic Arts is the study of the representation of human experience in
	dramatic form for an audience. It aims to promote and develop creativity as
Definition	a rich, diverse and productive resource through dramatic communication,
Demilion	interaction and representation. Dramatic Arts engages us with past and
	present narratives that talk to the complexities of being a South African. It
	makes no attempt to hide the truths associated with the complex issues we
	manage on a daily basis. The subject provokes us to consider our individual
	subject positions and collective attitudes, and to interrogate our thinking
	about our historical past and contemporary present as South Africans.
Key skills that	<ul> <li>Individual and group performance;</li> </ul>
will be	<ul> <li>Creating character through voice, body and gesture;</li> </ul>
developed	Improvising in different capacities:
	actor/director/designer/technician;
	Studying set plays holistically - from analysis to performance;
	<ul> <li>Studying different philosophical ideologies which influenced theatre movements.</li> </ul>
	<ul> <li>Experiencing professional performance workshops - different</li> </ul>
	aspects of theatre e.g. physical theatre.
	<ul> <li>Reflecting critically on plays and learning to appreciate live</li> </ul>
	performance;
	<ul> <li>Research projects – drama and theatre-related.</li> </ul>
	<ul> <li>Film study and film acting techniques.</li> </ul>
Possible	Dramatic Arts will allow access to courses such as BDrama, creative and
careers	performing arts, theatre and film studies and media studies. Careers closely
	linked to Dramatic Arts include: theatre and stage management, cultural
	tourism, event co-ordination, publishing, advertising, teaching, theatre design and various careers in the media field, applied theatre and drama which
	include Drama in Education, Community theatre and Drama therapy.
	include Drama in Eudealion, Community means and Drama merapy.
Required	Application of knowledge.
Skills	<ul> <li>Practical ability coupled with the willingness to improve.</li> </ul>
	<ul> <li>Love or understanding of literature and theatre/film.</li> </ul>
	<ul> <li>Interest in history and philosophical concepts.</li> </ul>

## > It is required that a pupil complete a practical task before he/she will be allowed to choose Dramatic Arts as a subject.

Requirements: the performance of a monologue. The monologue must be between 2-3 minutes in length. (Appointments for the auditions to be admitted to this subject must be made with Mrs. Purchase.) Pupils who took Drama as a choice subject in grade 9 will do auditions during November exam.

## Engineering Graphics and Design

Definition	Engineering Graphics and Design involves the integration of cognitive and manipulative skills used to design and communicate graphically. It is a combination of lines, symbols and signs used to render services and design processes and systems that contribute towards economic growth and enhanced quality of life.
Key skills that will be developed	<ul> <li>Communicate ideas graphically by using drawing instruments and computer-based tools (CAD );</li> <li>Learn by solving problems in creative ways;</li> <li>Carry out projects using the design process;</li> <li>Learn by dealing directly with human rights and social and environmental issues in project work;</li> <li>Use knowledge in a purposeful way;</li> <li>Develop positive attitudes, perceptions and aspirations towards manufacturing, engineering and technology-based careers.</li> <li>Cognitive development (visualisation, insight and perception)</li> <li>Free-hand, instrument and computer-aided drafting</li> <li>Projection methods</li> <li>Pictorial drawings</li> <li>Principles of design</li> <li>Loci</li> <li>Principles of sectioning and</li> <li>Acceptable codes of practice (SANS, ISO, IEC and SI)</li> </ul>
Possible careers	Draughting, engineering, architecture, designing, surveying, city planning.

A minimum of 45 % for Mathematics at the end of grade 9 is required to take EGD. Pupils will not be allowed to take EGD in conjunction with Mathematical Literacy.

### French

Definition	French is an international language which is spoken, not only in France, North America and Europe, but also in many African countries. It is said to be the fifth most spoken language. Proficiency in French and knowledge of the culture and literature of France and the Francophone countries can therefore improve employment opportunities for pupils.
Key skills that will be developed	<ul> <li>Ability to speak and converse in modern, standard French;</li> <li>Ability to understand spoken French and to respond appropriately;</li> <li>Ability to read and understand French;</li> <li>Ability to write in French.</li> </ul>
Possible careers	French teacher/lecturer or teaching as an ESL (English Second Language) teacher in a Francophone country, translator / interpreter, travel and hospitality careers, foreign service or foreign affairs officer, international organisational opportunities, media relations, working in Francophone countries in various career fields.

A pupil wishing to take French as a subject needs to have at least two years of French background. It would be to the pupil's advantage to have had French as a choice subject in grade 9.

## Geography

Definition Key skills that will be developed	<ul> <li>Geography is the study of the human and physical environments. It is an integrated discipline that examines both physical and human processes over space and time. Geography helps us to understand our complex world. It provides a bridge between the human and physical sciences. There are many branches of Geography. Physical Geography examines natural processes and features including the atmosphere, landforms, and ecosystems. Human Geography is concerned with the activities and impact of people on the Earth. The concept that unifies Geography is space. All geographical phenomena have a spatial dimension. They also operate in a continuously changing environment.</li> <li>The Geography curriculum aims to develop the following subject-specific skills:</li> <li>using verbal, quantitative and symbolic data forms such as text, pictures, graphs tables, diagrams and maps;</li> <li>practising field observation and mapping, interviewing people, interpreting sources, working with statistics;</li> <li>applying communication, thinking, practical and social skills;</li> <li>practising the following specific skills: <ul> <li>identifying questions and issues</li> <li>collecting and structuring information</li> <li>processing, interpreting, and evaluating data</li> <li>making decisions and judgements</li> <li>deciding on a point of view</li> <li>suggesting solutions to problems</li> <li>working co-operatively and independently.</li> </ul> </li> <li>Geographical education contributes also to the development of personal and social competence.</li> </ul>
Possible careers	There is no such thing as a geography job; there are however jobs that geographers do.
	<b>Travel, leisure and culture:</b> travel agent, eco tour guide, heritage site manager. <b>Environment and sustainability:</b> town planner, environmental impact
	assessor, pollution analyst, landscape architect, conservation worker. <b>Development and global issues:</b> armed forces, diplomat. <b>Settlement:</b> surveyor, urban regeneration developer, estate agent, town
	planner, environmental consultant. Services: teacher, emergency services, university lecturer, pilot. Earth sciences: meteorologist, geologist, seismologist, hydrologist. Geographical techniques: GIS specialist, cartographer, remote sensing.

## History

Definition	History, by its very nature, teaches young people the critical skills and thought processes crucial to becoming responsible citizens in a democracy. It helps develop an understanding of human agency and shows that we can all make a difference.
Key skills that will be developed	<ul> <li>The ability to read critically, to analyse data and to draw valid conclusions (research and retrieval);</li> <li>The discipline and skill to carry out research into original documentary sources (interpretation);</li> <li>The sensitive handling of language so that arguments, propositions and hypotheses can be made precisely and lucidly (communication / discursive writing);</li> <li>A clear understanding of the moods and attitudes of a given time (empathy);</li> <li>An understanding of cause and effect;</li> <li>The ability to read widely and recall and apply relevant information.</li> </ul>
Possible careers	While History is not a prerequisite for any tertiary course, historical method is fundamental to all reading, thinking, research and writing in the humanities and in many of the sciences. History is a great help in the study of all social sciences including journalism, law and literature.

## Information Technology

Definition	Information Technology is the study of the various interrelated physical and non-physical technologies used for the capturing of data, the processing of data into useful information and the management, presentation and dissemination of data. Information Technology studies the activities that deal with the solution of problems through logical and computational thinking.
Key skills that will be developed	<ul> <li>Solutions development</li> <li>solve computational problems through: <ul> <li>identifying and analysing requirements for a specific problem;</li> <li>designing effective algorithms;</li> <li>converting these to code; and</li> <li>testing the solution to see if it meets the requirements.</li> </ul> </li> <li>apply the principles of human computer interaction to design functional user interfaces</li> <li>Learners need to develop an understanding of: <ul> <li>data and information with regard to the representation and classification thereof;</li> <li>how business takes advantage of computer databases to store data and retrieve information that enables it to gain a competitive edge as well as the social, legal and ethical issues involved;</li> <li>database design for use as part of information-driven ICT systems and platforms; and</li> <li>DBMS software and its purpose and application in an information-driven society.</li> </ul> </li> <li>Becoming digitally informed citizens by understanding: communication technologies; systems technologies; internet technologies; and the social implications of these qualities.</li> </ul>
Possible careers	Software developer, data scientist, computer systems analysts, database administrator, information security analysts, web developers, computer network architects

A minimum of 65% for Mathematics is required at the end of grade 9 to take Information Technology. Pupils will not be allowed to take Information Technology in conjunction with Mathematical Literacy and CAT.

## Life Sciences

Definition	The science of life and of living organisms, including their structure, function, distribution, adaptation, interactions, and evolution of all living organisms including both plants and animals. Life Sciences encompasses a broad spectrum of academic fields that are often viewed as independent disciplines.
Key skills that will be developed	<ul> <li>Critical thinking;</li> <li>Independent thinking: developing and testing hypotheses using scientific method;</li> <li>Decision making;</li> <li>Researching background information using a variety of different media;</li> <li>Ability to judge the reliability of different sources of information;</li> <li>Project development and experimental techniques;</li> <li>Team work;</li> <li>Communication skills;</li> <li>Presenting results using appropriate scientific language and techniques;</li> <li>Problem solving.</li> </ul>
Possible careers	Research scientist (medical), medical doctor, dentist, pharmacologist, geneticist, environmental management and conservation, forensic scientist (CSI), biotechnologist, marine biologist, pathologist (CSI).

### Music

Definition	The main purpose of this subject is to empower students with the creative skills, social and analytical that will allow them to succeed in different spheres of our growing cultural economy. Students enrolled in Music at Southdowns College will be expected to perform as a solo musician and as part of a band or ensemble. They will gain knowledge of the music industry and business, music history (both contemporary and classical), music theory, aural, improvisation and composition. The new syllabus addresses all of the above in a way that will empower future musicians and creatives.
Key skills that	• The student is taught an instrument/s up to the minimum of
will be	grade 5/6.
developed	<ul> <li>The student learns how to arrange and compose music as well as record it in a studio. Students are encouraged to develop a personal style in any genre but centre their compositions on relevant social issues.</li> <li>The student studies of theory and harmony up to about grade 5/6 level. The student must be able to apply this knowledge to his/her own and the compositions of others. They must become conversant in other notation systems like Tonic Sol Fa, guitar chords and tab notation.</li> <li>The students learn about the genres of Western European/American and South African classical, jazz and rock music as well as indigenous Indian and African music. They are also shown how to register compositions with SAMRO.</li> <li>Students learn how to perform as a solo musician and develop their own unique style and sound. Students are also taught how to interact and read an audience by being able to select relevant repertoire for specific events and shows.</li> <li>Students are taught how to perform in a band situation or ensemble situation and how to manoeuvre around the politics of working in group situations.</li> <li>Students are taught the ins and outs of the music industry. They are taught about contracts, music laws, intellectual property rights and how to apply them to the work that they create.</li> </ul>
Possible	Pupils can become performers as well as sound technicians, event
careers	co-ordinators, publicists, label managers, recording executives,
	public relations officers, artist agents, publishers, producers, artist managers, music entrepreneurs, recording artists, album cover
	designers and composers and arrangers.

## **Physical Science**

Definition	Physical Science focuses on investigating physical and chemical phenomena through scientific inquiry. By applying scientific models, theories and laws, it seeks to predict and explain events which occur 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.
Key skills that will be developed	<ul> <li>The skills and processes which pupils use and develop in the study of Physical Sciences are similar to those used by scientists at work.</li> <li>The skills that will be developed are: <ul> <li>Construction and application of scientific knowledge;</li> <li>Critical thinking;</li> <li>Decision making;</li> <li>Team work;</li> <li>Communication skills;</li> <li>Problem-solving skills like identification and analysis of the problem at hand and the designing of procedures to reach solutions;</li> <li>Scientific inquiry skills like planning, observing and gathering information, comprehension, synthesising, generalising, hypothesising and communicating results and conclusions.</li> </ul> </li> </ul>
Possible careers	Physical Science opens many doors and will afford pupils the opportunity of completing courses in the faculties of health sciences, engineering, building science and information technology, natural and agricultural sciences, education and veterinary sciences.

A minimum of 65% for Mathematics and 65% for Physical Science is required at the end of grade 9 to take Physical Science. Pupils will not be allowed to take Physical Science in conjunction with Mathematical Literacy.

## Tourism

Definition	Tourism is vital for many countries, due to the income generated by the consumption of goods and services by tourists, and the opportunity for employment in the service industries associated with tourism. Tourism is a service industry, comprising a number of tangible and intangible components. The tangible elements include: transport systems - air, rail, road, water and now, space; hospitality services - accommodation, food and beverages, tours, souvenirs; and related services such as banking, insurance and safety and security. The intangible elements include: rest and relaxation, culture, escape, adventure, as well as new and different experiences.
Key skills that will be developed	Tourism empowers pupils to understand the related services in the tourism industry. The knowledge, skills, attitudes and values gained in Tourism will develop an appreciation within the pupils for the heritage, and cultural diversities of many different countries, instilling a holistic view of how tourism affects the world. Pupils will be equipped with the skills to understand the world as an inter-related system, and how important responsible and sustainable tourism is to the environment. They will gain an understanding of tourism geography, attractions and travel trends of tourists; as well as being taught how to master the skills of customer care through communication. Tourism, as a subject, encompasses relevant theory which is put into practice in a relevant way which relates to up-to-date happenings. The subject aims to develop pupils' awareness of the value that tourism brings to the local economy. By becoming better users of the tourism product they will be able to identify entrepreneurial opportunities for themselves and therefore be able to make an informed career decision.
Possible careers	The study of Tourism can open many doors and assists in a variety of careers: self-employment, tour guide/operator, hospitality (hotel/B&B/food & beverage manager), customer service, travel agent, operations control, educator, nature conservation, eco- tourism.

#### Visual Art

Definition	Visual Art focuses on the creative process and innovative thinking of each individual as they develop their knowledge and skills using various techniques and materials. Art carries a message and thus the pupils are also required to engage with their view of themselves and the world around them.
Key skills that will be developed	<ul> <li>Record and analyse observations and ideas for different purposes and audiences (including information technology);</li> <li>Discuss and question critically;</li> <li>Organise and present information in a visual diary;</li> <li>Investigate, combine and manipulate materials and images;</li> <li>Apply and extend experience of a range of materials and processes refining control of tools and techniques (e.g.drawing, painting, print-making, sculpture, collage and mixed-media);</li> <li>Experiment with and select methods and approaches, synthesise observations, ideas and feelings and make images and art works;</li> <li>Analyse and evaluate their own and other work;</li> <li>Adapt and refine work and plan and develop this further in the light of their own and others' observations.</li> </ul>
Possible careers	Art offers a wide variety of career opportunities including the following: professional artist, educator, illustrator, photographer, fashion designer, graphic or jewellery designer, stage designer, animator, architect, art critic, set-builder and costume designer.

Portfolio items need to be submitted to a selection panel before a pupil will be allowed to choose Visual Art as a subject.

Requirements: pupil must submit two realistic artworks, one depicting a natural object and one depicting a man-made object. Pupils should use pencil on an A4 page for the one drawing, using black and white only. The other drawing should also be done on A4 in which colour must be used. Their name should be clearly indicated on the drawing. Due date: **12 October 2018 (submissions are to be made to Ms. L. Joubert).**