

# MIDSTREAM COLLEGE



## SUBJECT INFORMATION 2024 FOR 2025

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# SUBJECT CHOICES

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## INTRODUCTION

In grade 10 a learner has to take seven recognised subjects to attain the National Senior Certificate at the end of grade 12. Four of these are compulsory and three are choice subjects.

### Compulsory Subjects:

- A learner has to take at least one language (in this case English or Afrikaans) on Home Language level. The other language may be taken on First Additional Language level. Learners also have the option of taking both English and Afrikaans on Home Language level.
- A learner has to take either Mathematics or Mathematical Literacy.
- All learners must take Life Orientation.

### Choice Subjects:

- Learners have to choose three of the 13 subjects offered in the grade 10 year.

### Further Studies Mathematics:

- Learners have the option of taking Further Studies Mathematics as an 8th subject. This is presented after hours and involves extra cost. Learners will be invited to join the programme at the start of the new academic year.

### Procedure:

- Kindly complete the subject choice form by clicking on the link provided on the website.

# LANGUAGES: AFRIKAANS & ENGLISH

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## Description

Language is central to our lives. We communicate and understand our world through language. Language thus shapes our identity and knowledge. It is through language that cultural diversity and social relations are expressed and constructed. Language proficiency is central to learning across the curriculum as learning takes place through language.

## Why is it an important subject?

In view of the linguistic and cultural diversity of South Africa, its citizens must be able to communicate across language barriers and foster cultural and linguistic respect and understanding.

The study of languages serves a variety of purposes and enables learners to:

- Broaden and deepen language competencies.
- Use language appropriately in real-life contexts.
- Develop independent analytical thinkers.
- Use language and imagination to represent and explore human experience.
- Use language to access and manage information (information literacy).
- Use language as a tool for critical and creative thinking.
- Express reasoned opinions on ethical issues and values.
- Interact critically with a wide range of texts.
- Recognise the unequal status of different languages and language varieties.

## What does it consist of?

- **Inclusivity:** Teaching and assessment of languages should make provision for the inclusion of all learners, and strategies should be found to assist all learners to access or produce language texts.
- **Language levels:** Languages are offered at the following levels:
  - Home Language: The learners' home language needs to be strengthened and developed so as to provide a sound foundation for learning additional languages.
  - First Additional Language: Learning a first additional language promotes multilingualism and intercultural communication.

## How will this subject help a learner to get into the world of work or further studies?

Language is a gateway subject. The study of languages can lead to language-oriented careers such as journalism, translation, language teaching, marketing, advertising and diplomacy.

Language is the basis of all learning, not only in everyday life but also in the workplace. In the highly competitive technological world, access for the learner is determined by communicative competence.

# MATHEMATICS

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## Description

Mathematics is a subject that is based on observing patterns and formulating general theories using logical thinking. This is done by means of numerical and symbolic models using language and symbols.

## Why is Mathematics an important subject?

Mathematics provides the foundation for access to further studies in a variety of fields in an academic as well as vocational direction. It develops knowledge, skills, values and attitudes that will enable learners to participate in, contribute to, adapt to and survive in a complex information- driven society. Mathematics develops logical thinking as well as problem solving skills. Studying Mathematics will instill a critical awareness of functional relationships. This means that learners will be equipped to understand how various aspects in real life are dependent on each other and how change in one aspect influences change in another. It is commonly accepted that mathematical habits of mind are key to success in everyday life as well as in the workplace. In this way Mathematics plays an important role in the scientific as well as economic development that is needed to build a prosperous South African society, able to play its part in a globalised world.

## What is the subject about?

Mathematics enables creative and logical reasoning about problems in the real as well as the scientific environment in which people operate. It provides a language to describe natural and scientific phenomena in a way that enables people to solve problems in these contexts.

Using available technology such as scientific calculators and computers it will enable learners to:

- Use numbers and number relationships to solve problems in Mathematics as well as in real life, including financial aspects of personal and community life.
- Apply the rules and processes of Algebra to create models for problem solving in a variety of contexts.
- Describe, analyse and represent the geometrical properties of space, including natural and man-made objects and structures.
- Collect, use and interpret data using techniques of descriptive statistics and probability.

## How will this subject help a learner to get into the world of work or further studies?

**TERTIARY STUDIES:** Mathematics provides a basis for tertiary studies in the fields of Mathematics, all the different sciences as well as the economic and management sciences.

**CAREERS:** A study of Mathematics will enable learners to enter different careers such as teaching, engineering, medicine, and other technically related occupations, commercial and management related occupations, e.g. chartered accountancy, etc.

# MATHEMATICAL LITERACY

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## Description

Mathematical Literacy is intended to address the low level of numeracy that generally prevails in our society. It thus strives to provide learners with an awareness of the role that Mathematics plays in everyday life. As such it will be a subject driven by life-related applications.

## Why is Mathematical Literacy an important subject?

Mathematical Literacy should not be seen as a watered down form of Mathematics. It is a subject in its own right. Its intentions are to develop knowledge, skills, values and attitudes that will enable learners to participate in, contribute to, adapt to and survive in a complex, information driven society. This will be achieved by developing an understanding of mathematical terminology, ways of thinking, and techniques to make sense of numerical and spatial information presented in texts, diagrams, tables and graphs. Such representations are very commonly used in the media. Mathematical Literacy develops logical thinking, problem solving skills, and will instill a critical awareness of functional relationships. It is commonly accepted that mathematical habits of mind are key to success in everyday life as well as in the workplace. Mathematical Literacy plays an important role in developing skills needed to build a prosperous South African society, able to play its part in a globalised world.

## What is the subject about?

Mathematical Literacy enables creative and logical reasoning about problems in the everyday environment in which people operate. It provides a language to understand and describe mathematically based information and phenomena in a way that enables the learner to function effectively as a self-managing person, a contributing worker and a participating citizen.

Using available technology such as scientific calculators and computers it will enable learners to:

- Use numbers and number operations to solve mathematically related problems in real life, including financial aspects of personal and community life.
- Apply the techniques of functional relationships and graphs to create models for problem solving in a variety of everyday contexts.
- Describe, analyse and represent the geometrical properties of space, including natural and man-made objects and structures.
- Collect, use and interpret data using techniques of descriptive statistics and probability.

## How will this subject help a learner to get into the world of work or further studies?

Mathematical Literacy provides a basis for tertiary studies in fields such as social sciences, life sciences and economic and management sciences. Mathematical Literacy will enable learners to embark on careers in industrial and technical fields, as well as commercial and management related occupations etc.

Mathematical Literacy should however not be taken by those learners who intend to study disciplines which are mathematically based such as natural sciences and engineering.

# LIFE ORIENTATION

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## Description

Life Orientation is the holistic study of the self in relation to others and to society. It deals with the personal, social, intellectual, emotional, spiritual, motor and physical growth and development of learners, and the way in which these dimensions are interrelated and expressed in life.

## Why is Life Orientation an important subject?

Life Orientation equips learners to engage on personal, psychological, neuro-cognitive, motor, moral, spiritual, cultural, socio-economic and constitutional levels, to respond to the demands of the world, to assume responsibilities, and to make the most of life's opportunities. Life Orientation promotes knowledge, skills, attitudes and values that prepare learners to respond effectively to the challenges that confront them as well as the challenges that they will have to deal with as adults, and to play a meaningful role in society.

## What does it consist of?

Life Orientation is a unique subject in grade 10-12. It focuses on the diversity of learners as human beings in their totality. The scope of the subject embraces the following features:

- **Personal Well-being** - This aspect is central to fulfilling one's potential. It enables learners to engage effectively in interpersonal relationships, community life and society. This area focuses on self-concept, emotional literacy, social competency and life skills.
- **Citizenship Education** - Personal and individual needs have to be placed into a social context to encourage acceptance of diversity and to foster commitment to the values and principles espoused in the Constitution. Discrimination on the basis of race, religion, culture, gender, age, ability and language, as well as issues such as xenophobia, is addressed.
- **Recreation and Physical Activity** - Knowledge of healthy practices and nutrition, participation in games, sport, recreational and leisure time activities, and the understanding of the relationship between health, physical activities and the environment can improve the quality of life and well-being of all learners.
- **Careers and Career Choices** - Learners must make critical decisions regarding career fields and further study. In order to help learners to make these decisions, they will be exposed to study methods and skills pertaining to assessment processes, information about institutions of higher education, and preparation for job applications and interviews.

## How will this subject help a learner to get into the world of work or further studies?

Life Orientation prepares learners to realise their expectations by teaching them how and where to access additional and higher education, and preparing them to take their place in society. Learning outcomes have been written specifically for this purpose. It will provide learners with knowledge, skills, values and attitudes that will enable them to pursue different careers.

# ACCOUNTING

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## Description

Accounting focuses on the processing and communicating of financial information. It ensures that ethical behaviour, transparency and accountability are adhered to. It deals with the logical, systematic and accurate selection and recording of financial information as well as the compilation, analysis and interpretation of financial statements and reports.

## Why is Accounting an important subject?

Accounting develops learners' knowledge, skills, values, attitudes and ability to make meaningful and informed personal and collaborative financial decisions in economic and social environments. It enables learners to deal with the basic demands of an accounting occupation manually and/or electronically. Learners develop characteristics like ethical behaviour, sound judgement, thoroughness, orderliness, accuracy and neatness.

## What is the subject about?

This subject encompasses accounting knowledge, skills and values focusing on the financial, managerial and auditing fields. The scope of the subject embraces the following features:

- **Financial Accounting**
  - The logical, systematic and accurate recording of financial transactions as well as the analysis, interpretation and communication of financial statements.
- **Managerial Accounting**
  - Concepts such as costing and budgeting. Emphasis is placed on interpretation and communication of financial and managerial information for decision-making.
- **Tools in managing resources**
  - Basic internal controls and internal audit processes, and code of ethics. Emphasis is placed on the knowledge, understanding and adherence to ethics in financial and managerial activities.

## How will this subject help a learner to get into the world of work or further studies?

Accounting provides a basis for further studies at tertiary institutions. It enables learners to develop skills, knowledge, values and attitudes to pursue different career pathways.

Accounting in grades 10-12 will provide learners with knowledge, skills, values and attitudes that will enable them to pursue different careers.

## Requirements

60% for Mathematics in the grade 9 June examination.

# BUSINESS STUDIES

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## Description

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 deals with business principles, theory and practice that underpin the development of entrepreneurial initiatives, sustainable enterprises and economic growth.

## Why is Business Studies an important subject?

The subject intends to build the capacity of learners towards being informed, imaginative, participative, contributing and reflective business practitioners who can dynamically perform a range of interdependent business operations. The development of business roles will put learners in a position where they are able to effectively apply knowledge and skills to analyse and deal with different business environments, to initiate and carry out business ventures and successfully carry out business operations.

## What is the subject about?

Business Studies builds learners' capacity for promoting excellence and contributing towards sustainable business enterprises. It embraces constitutional goals and objectives through promoting accessible, legitimate entrepreneurial business opportunities. The subject also provides opportunities for learners to consider present-day challenges within the enabling South African policy framework. Skills such as decision-making, problem solving, creative thinking, systems thinking and effective communication in a competitive and constantly changing environment are critical to this subject.

This subject has the following core features:

- **Business Environment** - This feature focuses on the different elements of the macro, micro and market business environments, as well as the complex and diverse nature of business sectors.
- **Business Ventures** - This feature focuses on the development of important factors that contribute towards the creation of sustainable business enterprises. A key feature is the development of creative entrepreneurs who can identify and responsibly pursue productive business opportunities.
- **Business Roles** - This feature covers the essential roles that learners need to perform in a variety of business contexts.
- **Business Operations** - This feature should equip learners with the knowledge and skills to effectively manage essential business operations such as human resources, public relations, marketing and production within the context of relevant legislation and contemporary issues.

## How will this subject help a learner to get into the world of work or further studies?

Business Studies equips learners with a sound foundation to participate in business, commerce and management studies, or to enter business or create employment for themselves and others.

# COMPUTER APPLICATIONS TECHNOLOGY (CAT)

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## Description

Computer Applications Technology teaches how computers, cell phones, the Internet, e-mail, networks and similar technologies are used by people to do their daily tasks in all sectors of life on already available computer programmes.

## Why is Computer Applications Technology important?

Learners will gain the knowledge and know-how to work with information and make it available by using different tools. They will be able to gather all sorts of data, study and analyse it, and show their findings to the different sections of our society. While doing this, they will use different technologies and different computer programmes.

## What does it consist of?

Learners will learn how to use computer programmes to help them do their daily tasks, such as typing their homework assignments, letters or CVs on a word-processing programme. They will learn how to calculate all their marks for tests (on a spreadsheet), make lists of their CD and video collection so it can be more organised (on a database), or send messages via e-mail to learners in other countries. When they need to do projects they will learn how to search the vast network of computers, called the Internet, for information.

Learners will learn about the different parts of the computer, what the parts do and how they work. They will learn about computers in everyday life, including ATMs, and how computers are used in hospitals, restaurants, libraries, etc. They will learn how computer use affects our lives (such as e-commerce and Internet banking) and our health (eyesight and posture). They will learn how to use computers responsibly and ethically.

## How will this subject help a learner to get into the world of work or further studies?

A learner with all this knowledge and skill is placed in a favourable position to be employed. Most jobs require people to be computer literate.

With the knowledge and skills gained in Computer Applications Technology learners can study further in many other fields: education, computer science, economics, geography, technology, engineering, statistics, and tourism.

Computer Applications Technology takes what the learner has learnt in Computer Literacy (grades 1-9) further.

Computer Applications Technology allows learners to develop basic to advanced computer skills. This places learners in a position to enter different careers in a number of fields. Learners could also apply these and related skills to create employment for themselves and others.

## Language of instruction

Kindly note that CAT is only presented in English.

# DRAMATIC ARTS

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## Description

Drama is a social art form, which integrates visual, aural, physical, kinaesthetic, and performance elements to communicate, explore, reflect on and enhance human experience. The subject Dramatic Arts encompasses a range of performance modes across a variety of media and within a diversity of cultural and social contexts.

## Why is Dramatic Arts important?

The subject Dramatic Arts develops and promotes human creativity as a rich, diverse, and productive resource through dramatic communication, interaction, and representation. Learning in the Dramatic Arts involves using experience, reflection, and analysis and re-experience to gain skills, knowledge, values, and insight. The approach is inclusive, ensuring that all learners, including those with special educational needs, will be actively and creatively engaged in the learning process. Dramatic Arts teaches learners to speak comfortably in front of people and to be comfortable with themselves in front of people. These are skills that you will use in every profession. It teaches learners to think on their feet and improvise. It helps learners to put together storyboards and be able to market themselves. In a world where Influencers and Zoom dressings are becoming the norm, it showed that one must be adaptable even in front of a camera. We need to teach learners to create their own way and Dramatic Arts gives learners the opportunity to learn the skills.

## What does it consist of?

The scope covered by the subject includes:

- Cultural practices and processes, including traditions, customs, festivals and rituals.
- Oral studies including praise poetry, myths, poetry, legends, folk tales, folklore, laments, storytelling and public speaking.
- Text (written, visual and oral) and context (identity, societies, cultures, ideologies, time and change).
- Performance styles, traditions and movements and contributions of indigenous and global theatre practitioners.
- Dramatic practices, processes and products including improvisation, role play, characterisation, acting, directing, designing, stagecraft, arts administration and entertainment technology.
- Drama media, as an aspect of mass media, including all means of telling stories by way of film, stage, video, and television.

## How will this subject help a learner to get into the world of work or further studies?

Learners who select Dramatic Arts will be equipped with extensive skills for entry into institutions of higher or additional learning. Dramatic Arts will allow access to courses such as Theatre and Film Studies, Media Studies and Speech and Drama, offered at universities and other tertiary institutions. Learners who opt to enter the world of work will be advantaged by skills acquired in Dramatic Arts when entering fields such as: art galleries, museums, arts industries, community arts centres, publishing and advertising, private and independent drama studios, public relations, stage, television and film industries. Dramatic Arts is useful for diverse learning fields. Its transference of values of confidence, creativity, problem solving, conflict resolution, inventiveness and communication can easily be accessed in the services, manufacturing and engineering fields, amongst others.

# ENGINEERING GRAPHICS AND DESIGN

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## Description

Engineering Graphics and Design integrates cognitive and manipulative skills to communicate graphically, using a combination of lines, symbols and signs in order to produce products, processes, services and systems which contribute towards economic growth and enhanced quality of life.

## Why is Engineering Graphics and Design an important subject?

Engineering Graphics and Design will contribute towards learners' technological literacy by giving them opportunities to:

- develop and apply specific skills to solve technological problems related to Engineering Graphics and Design;
- understand the concepts and knowledge used in Engineering Graphics and Design, and use them responsibly and purposefully; and
- appreciate the interaction between people's values and attitudes, technology, society, environment and human rights.

## What is the subject about?

The following concepts are included to prepare learners for career pathways and for Higher Education and Training in architectural, civil, mechanical and electrical engineering:

- Cognitive development (visualisation, insight and perception).
- Free-hand, instrument and computer-aided design.
- 2-dimensional and 3-dimensional drawings.
- Projection methods.
- spatial drawings; and
- Sectioning (detail and assembly drawing).

Embedded in each of these concepts are mechanical technology, electrical technology, civil technology and architectural technology.

## How will this subject help a learner to get into the world of work or further studies?

Engineering Graphics and Design includes but is not limited to:

- applications of the principles of Mathematics, Physical Sciences, CAT and Life Sciences to manufacturing, engineering and technology problem solving;
- conceptual design, synthesis and graphics;
- conceptual knowledge, understanding and application of materials and processes in manufacturing and the built environment;
- architectural, mechanical, structural, electrical and civil engineering;
- communicating technical, supervisory and general management effectively, both orally and in writing, using appropriate language, structure, style and graphical support;
- application of codes of practice (standards and conventions) and legislation;
- mobilising indigenous knowledge so that learners can benefit from indigenous technologies and indigenous technological solutions; and
- enabling learners to consider a range of technological solutions to problems, particularly those that are more sustainable and ones that are not detrimental to human health, well-being and the environment.

# GEOGRAPHY

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## Description

Geography is a science that studies physical and human processes and spatial patterns on Earth in an integrated way over space and time. It examines the distribution of people and their activities, physical and man-made features, ecosystems and interactions between humans, and between humans and the environment in a changing world.

## Why is Geography important?

Geography enables learners to: explain processes and patterns; make decisions about changing environments and surroundings, think more critically and creatively about what it means to live sustainably, recognise how values and attitudes influence and affect the environment, and apply a range of geographical skills and techniques to issues and challenges in a rapidly-changing world.

Geography in the Further Education and Training Band also aims to:

- develop skills to research, interpret, analyse and make decisions about the environment (physical and human).
- develop knowledge and an understanding of the changing nature of the Earth (world).
- to understand the relationship between humans and their environment.
- prepare learners to become informed, critical and responsible citizens who can make effective decisions and take actions that will contribute to equal and sustainable development of human society and the physical environment.
- to teach learners insight in all world affairs and to utilise and expand the learners general knowledge.

## What does it consist of?

Geography deals with:

- The composition and functioning of the Earth and all the processes that form and change the Earth internally and externally - Geomorphology.
- The composition of the atmosphere and the processes that affect our weather and climate - Climatology.
- The distribution of people within a country and the processes of settlement as well as human interaction with the Earth on which they live - Settlement and Population.
- The sustainable use of the environment and our natural resources together with the import and export of these products – Economic, Resources and Development.
- Understanding and interpretation of maps as well as Geographic Information Systems (electronic mapwork) - Map work.

## How will this subject help a learner to get into the world of work or further studies?

- Geography is the basis for any natural science or business field of study at university.
- It benefits learners who learn through the use of computers and they will develop a mind-set for the twenty-first century.
- Learners are able to do research, calculate, write, save and organise their assignments logically.
- Geography provides a number of career opportunities including the following: aviation, geology, geological engineering, economy, environmental impact studies, architecture, mining, cartography, eco-tourism, land surveying, meteorology, nature conservation, rural and urban planning, water and land affairs as well as geographical information systems also known as GIS.
- Geography is mandatory if overseas studies are considered (they require social science as a subject) as well as for all agricultural studies.

# HISTORY

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## Description

History is a study of change and development in society over time and space. It is a fascinating exploration of human behaviour, choices and consequences of those choices as well as the power relations that operate in any society, present or past. History is not just about memorising reams of content, but uses content as a context for developing the skills of enquiry, interpretation and knowledge construction. These are valuable life skills, involving identifying and evaluating relevant information, and then constructing history based on this. A new aspect of History is the exploration and analysis of heritage and public representations of the past, such as monuments, memorials, museums, buildings, heritage sites and community history and memory. This takes history beyond the classroom into the world around us.

## Why is History important?

History contributes to the development of life skills. These include the ability to analyse and organise a wide range of information, to develop logical arguments supported by evidence, and to understand and evaluate different points of view. Learners will develop an understanding of issues in our world today and of the importance of the past for understanding the present and building the future. History also teaches young people the skills and thought processes necessary to becoming responsible citizens in a democracy. History teaches us that we have choices and that we can all make a difference.

## What does it consist of?

The content in History is organised to answer two important key questions:

- How do we understand our world today?
- What legacies of the past have shaped the present?

By the time learners reach the end of grade 12 they will have explored issues of globalisation, the role of civil society, of human rights, race, gender, class, xenophobia and genocide and the impact that these have had in the past and are still having on our lives today.

The Learning Outcomes and Assessment Standards develops History as enquiry, builds conceptual knowledge and understanding, analyses different perspectives and interpretations and guides learners in the process of knowledge construction and effective communication.

## How will this subject help a learner to get into the world of work or further studies?

Through the study of History, young people will learn the art of oral debate and the ability to express and justify a clear personal point of view. These are invaluable skills for any job or further education. The skills, processes and understanding built into the Learning Outcomes prepare learners for managing themselves and their studies at a tertiary level. History prepares learners for a wide range of careers. In the current rapidly changing world employers want people who are independent thinkers, open-minded, disciplined, good at problem solving, able to pick out the essential from the trivial. The *Which Subject, Which Career?*, a guide published in the United Kingdom in 2002 said about the study of History: 'Historians are regarded as having had an education that trains their minds to assemble, organise and present facts and opinions and this is a very useful quality in many walks of life and careers. History is an excellent preparation for many jobs.' The study of History supports independent, critical thinking, valued in today's world in all careers.

## Language of instruction

Kindly note that History is only presented in English.

# INFORMATION TECHNOLOGY (IT)

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## Description

Information Technology teaches learners how to write new computer programmes and/or develop existing computer programmes to make it possible for users to do what they need to do. Such a learner would be someone who can think logically and is focussed on solving problems.

## Why is Information Technology important?

The computer is increasingly used as a tool to make daily tasks easier and more effective. As we live in an environment that is constantly changing, we find ourselves constantly in need of doing things differently. Information Technology will make learners understand how a computer can be programmed through the use of current programming language to solve problems that may crop up in our daily lives, in the world of work and in the community.

## What does it consist of?

Learners will learn about the different parts of the computer, what the parts do and how they work. They will learn how computer use affects our lives (such as e-commerce and Internet banking) and our health (eyesight and posture). They will learn how to use computers responsibly and ethically, and will follow the new trends as they develop.

Learners will gain knowledge and know-how to work with and manage information and make it available by using different tools, particularly via electronic communication. They will be able to gather all sorts of data, study and analyse it, and show their findings to the different sections of our society.

Learners will learn how to write and test their own computer programmes that can solve problem situations fast and efficiently.

## How will this subject help a learner to get into the world of work or further studies?

A learner with all these skills and knowledge is placed in a favourable position to be employed. Most jobs require people to be computer literate.

With the knowledge and skills gained in Information Technology learners can study further in many other fields: education, computer science, technology, engineering, statistics and software development.

Information Technology allows learners to focus on activities that deal with solving problems through thinking logically, managing information and developing computer programmes. This places learners in a position to enter different careers in a number of fields. Learners could also apply these and related skills to create employment for themselves and others.

## Language of instruction

Kindly note that IT is only presented in English.

## Requirements

Only 50 learners can be accommodated. They will be selected based on the Mathematics mark in the grade 9 June examination.

# LIFE SCIENCES

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## Description

Life Sciences is the systematic study of life in a changing natural and human-made environment. This study involves critical inquiry, reflection and the understanding of concepts and processes and their application in society.

## Why is Life Sciences an important subject?

Life Sciences enables learners to:

- Understand the biological, physiological, environmental, technological and social processes that impact on the environment.
- Explore those concepts that are essential for understanding basic life processes and the interrelationships and interdependence of components of the living and the physical world.
- Debate and address the ethical, social and technological issues confronting people in the field of life sciences.

Learners will develop inquiry, problem solving, critical thinking and other scientific skills, and will use them to interpret and use Life Sciences concepts in explaining phenomena.

## What does it consist of?

Life Sciences develops the following competencies:

- Scientific inquiry and problem solving skills.
- Understanding and application of Life Sciences knowledge; and
- Understanding the interrelationship of Life Sciences, technology, the environment and society, and of different attitudes and values.

The competencies which will be developed within the following knowledge areas:

- Tissues, cells and molecular studies.
- Structures and control of processes in basic life systems.
- Environmental studies; and
- Diversity, change and the continuity of life.

## How will this subject help a learner to get into the world of work or further studies?

Life Sciences prepares learners for additional Higher Education and Training, vocational careers, and the world of work and self-employment. It caters for careers such as medicine, virology, microbiology, biochemistry, bioengineering, psychology, nursing, education, marine biology, genetics and environmental sciences.

# MUSIC

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## Description

*"Music is the answer to the mystery of life; it is the most profound of all the arts; it expresses the deepest thoughts of life and being in simple language which nonetheless cannot be translated."* – Arthur Schopenhauer

Music consists of three components:

- Practical music performance (playing an instrument)
- Music literacy (music theory, harmony and composition, and aural training)
- General music knowledge and analysis (music form and structure, music history, genres and styles)

Prerequisite minimum standard to apply for Music:

Grade 10:                      Grade 3 standard (Practical) and beginner's standard (Theory) – UNISA/ABRSM/Trinity

Learners who are interested in taking Music in grade 10 are strongly advised to take music in grades 8 and 9. Learners interested in taking Music for the first time in grades 9 or 10 must discuss this option with the music teacher.

## Why is Music important?

*"The man that hath no music in himself, ...  
Let no such man be trusted".* – William Shakespeare

Music develops the brain: Neuroscientists have recently made enormous breakthroughs in monitoring how our brain works and found that listening to music fires up multiple areas of the brain. Playing a musical instrument is the brain's equivalent of a full body workout, applying the motor, visual and auditory cortices as well as integrating both brain hemispheres.

Other benefits include:

Discipline (e.g. ensemble playing), self-discipline (daily self-practice), developing fine motor skills and super-coordination, creativity, social interaction, respect, and patience. Music is a universal language that communicates through many cultural and other barriers, and promotes problem solving and perseverance, performing and self-expression.

## What does it consist of?

This subject consists of a practical (50%) as well as a theoretical component (50%). Midstream learners will only receive tuition in the theoretical component in class. Learners will, however, be assessed on both practical and theoretical components. Learners and their parents are responsible for the complete practical side of the subject, including organising, funding, and finding instrument/voice private teachers and accompanists. The Midstream music teacher will be able to assist with referrals, if necessary.

The curriculum followed includes:

- Music literacy: theory and notation, harmony, knowledge of music terminology, composition, and aural training.
- General music knowledge and analysis: form and structure, history of Western art music
- (Renaissance to 21<sup>st</sup> Century), Jazz genre, African genre, and South African music genres and styles.

## **The value of the subject**

Most South African universities offer further musical studies in e.g. Performing Arts: Western Art and Jazz Studies, Composition (including Film Scoring), Music Education, Music Therapy, Music Technology and Musicology. There are full scholarships available at many of the departments. Thus, there are numerous job opportunities through musical studies in broadcasting, music education, music therapy, film industry and performing.

For learners who do not choose a career in music, the benefits of studying a musical instrument are infinite. These rounded individuals often receive scholarships to study abroad in various fields.

# PHYSICAL SCIENCES

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## Description

Physical Sciences is a study of Physics and Chemistry, providing learners with knowledge about scientific laws and principles, and the properties of matter. By doing experiments learners are introduced to the scientific method of exploring and explaining phenomena.

## Why is Physical Sciences an important subject?

This subject is important because of its investigative nature. Through scientific investigation existing scientific knowledge is verified and new scientific knowledge is created that benefits humankind, our future and the future of our planet. Through scientific investigation, our desire to understand the world around us, and how to care and benefit from it, is therefore accomplished.

## What does it consist of?

In the Physical Sciences learners will learn about motion, force, work, energy, waves, sound, colour, electricity, magnetism, electronics, materials, chemicals, chemical reactions, mining, plastics and chemical industries.

## How will this subject help a learner to get into the world of work or further studies?

There is a demand in many companies for persons with a scientific background. A learner with scientific knowledge and skills is considered rare and is thus in a more favourable position to find employment.

Learners who study Physical Sciences will be able to follow:

- **Academic** career paths at institutions such as universities and universities of technology that will result in them obtaining degrees in physics and chemistry, and related subjects.
- **Professional** career paths at institutions such as colleges and universities to become teachers, nurses, medical doctors, dentists, chemical engineers, pharmacists, and so on.
- **Vocational** career paths at universities of technology to become science technicians, technologists, etc.

## Requirements

60% for Mathematics in the grade 9 June examination.

50% for Physical Sciences in the grade 9 November examination.

# TOURISM

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## Description

Tourism is about holidays and leisure time – right? Not quite. Tourism has rapidly developed into an interdependent network of activities, facilities and services provided and maintained to keep up with the ever-changing needs of travellers in their own country and worldwide. People travel for reasons of business, conferences, health, leisure, interest in and concern about nature or their heritage, and shortly even into outer space! This subject is meant to open up the world of tourism and an understanding of what makes tourism 'tick' in a modern world.

## Why is Tourism an important subject?

The media continuously tell us that Tourism is a major role player in the economy of countries worldwide as far as income and job creation is concerned. It is sometimes seen as a wonder cure for economic ailments without understanding the sensitive nature of tourism and all the related factors, as well as the major positive and negative impact of tourism on people and their environment.

It is therefore important to study Tourism with an open mind when being introduced to the elements that make it a sustainable human activity in the interest of our country and of the world at large.

## What does it consist of?

A learner who studies this subject will have an overview of how the tourism industry operates and will understand why tourism is considered a major economic sector in countries all over the world. Such a learner will study the requirements for and the impact of sustainable tourism from an ecological, economic, heritage and community perspective. Modern environmental and social issues, for example, conservation, and the role of host communities in tourism development will be explored. Interpersonal communication in rendering service excellence is an important skill to be developed, closely linked to a positive attitude and a sense of self-worth. This will require critical and creative thinking skills, an enquiring mind, good communication skills and an appreciation of the diversity of South African cultures along with the realisation that the world out there requires hard work.

## How will this subject help a learner to get into the world of work or further studies?

A learner should consider selecting complementary subjects such as Business Studies, Computer Applications Technology and Geography to make up a meaningful package of knowledge and skills to follow up with a variety of higher education certificates, diplomas and degrees in tourism development, management or marketing.

Complemented by good business sense, advanced computer literacy, a solid foundation in entrepreneurship and the ability and willingness to work hard and smartly, a successful learner will find it possible to open a door in one of the many niche markets in tourism on a community level and beyond.

# VISUAL ARTS

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## Description

“... he’s only an eye but what an eye ...” said Paul Cézanne of Claude Monet.

The Visual Arts represent a broad field of creative practice that involves the eye, the hand, the intellect, the emotions and the imagination.

Visual Arts enables learners to become visually literate, explore, analyse, critically reflect on and express personal understandings of their world through making their own art-works in a variety of different ways. We live in an increasingly visual world and learners will apply their practical skills and knowledge to assist them in understanding the purpose of art in our own and other societies, past and present.

This subject consists of a practical as well as a theoretical component. The year mark comprises practical (50%) and theory (50%).

## Why is Visual Arts important?

The subject Visual Arts opens up an exciting world of creative and personal development. It enables learners to think laterally, to be flexible and versatile while at the same time being able to work in an independent, self-disciplined and organised manner. It provides a basis for learners to develop an individual visual language, which in turn is informed by Visual Culture studies.

The Visual Arts have a critical role to play in South African society. Through the Visual Arts, artists are able to record, critique and communicate their view of the society and times in which they live. This enriches the process of understanding the past and constructing a new sense of individual and national identity.

## What does it consist of?

Visual Arts offers a range of studies structured to challenge learners intellectually and emotionally, stimulate critical thinking and the creative imagination. The practical disciplines include drawing, painting, printmaking, sculpture, mixed media, photography and multimedia. Visual Culture Studies provides learners with the theoretical framework and includes South African, Pan African Art and global studies. Theory cannot be seen in isolation and is integral to all Visual Arts practice.

## How will this subject help a learner to get into the world of work or further studies?

Learners who select Visual Arts in the FET band will be able to make informed choices about vocational, career and higher education opportunities in a number of fields of creative practice. The Visual Arts are inclusive and provide multiple opportunities for challenged learners to achieve their human potential and become economically independent. The emphasis on self-discipline and independence, flexibility, practical skills, critical thinking and creative approaches to problem solving ensures that all Visual Arts learners acquire essential lifelong skills, regardless of what career choices they eventually make. Visual Arts offers many career options both in the formal and informal sectors, ranging from arts management and marketing, architecture, craft, education, heritage and conservation, journalism, photojournalism, curators (museums and galleries), publishing, television, theatre and film industries to visual arts practitioners. Visual Arts also provides learners with many life skills and general enrichment that is invaluable to *any* career choice, not just those in the arts sector.

# FURTHER STUDIES MATHEMATICS

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## Description

Further Studies Mathematics is an extension of Mathematics. It enhances mathematical creativity and logical reasoning about problems in the physical and social world and in the context of Mathematics itself.

## Why is it an important subject?

Further Studies Mathematics is aimed at increasing the number of learners who through competence and desire enter Higher Education to pursue careers in mathematics, engineering, technology and the sciences.

Further Studies Mathematics is an extension and challenge for learners who demonstrate a greater than average ability in, or enthusiasm for mathematics. The greater breadth of mathematical knowledge gained, and depth of mathematical processes developed through being exposed to advanced mathematics ideas enhances the learner's understanding of mathematics both as a discipline and as a tool in society. This broadens the learner's perspective on possible careers in mathematics and develops a passion for and a commitment to the continued learning of mathematics amongst mathematically talented learners.

## What does it consist of?

### PAPER I (STANDARD)

- Module 1A: Calculus

The learner is able to establish, define, manipulate, determine and represent the derivative and integral, both as an anti-derivative and as the area under a curve, of various algebraic and trigonometric functions, and solve related problems.

- Module 1B: Algebra

The learner is able to represent, investigate, analyse, manipulate and prove conjectures about numerical and algebraic relationships and functions, and solve related problems

### PAPER II (EXTENDED)

- Module 2: Statistics and Probability

The learner is able to represent, manipulate, analyse and interpret statistical and probability models, and solve related problems.

## How will this subject help a learner to get into the world of work or further studies?

Further Studies Mathematics is valuable in the curriculum of any learner who intends to pursue a career in the physical, mathematical, financial, computer, life, earth, space and environmental sciences or in technology. Further Studies Mathematics also supports the pursuance of careers in the economic, management and social sciences.

The knowledge and skills attained in Further Studies Mathematics provide more appropriate tools for creating, exploring and expressing theoretical and applied aspects of the sciences.

The added exposure to modelling encountered in Further Studies Mathematics provides learners with deeper insights and skills when solving problems related to modern society, commerce and industry.