Midstream College

SUBJECT INFORMATION 2026 FOR 2027

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SUBJECT CHOICES

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 is 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

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

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

Description

Mathematical Literacy is a highly practical, modern subject designed to address everyday numeracy needs and empower learners to navigate a data-driven world with confidence. Instead of focusing on abstract algebraic theories, this subject is entirely driven by life-related applications. It provides learners with a critical awareness of the essential role that Mathematics plays in personal finances, the workplace, and global socio-economic systems.

Why is Mathematical Literacy an important subject?

Mathematical Literacy must not be viewed as a "watered-down" version of Mathematics; it is a rigorous, academic subject in its own right within the IEB curriculum. Its core intention is to develop cognitive mathematical habits of mind. Through the development of logical thinking, mathematical reasoning, and problem solving skills, learners cultivate a sharp, critical awareness of functional relationships. These competencies are crucial for personal self-management and workplace success, equipping young South Africans to actively participate in a highly competitive, globalised economy.

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 the IEB curriculum enables learners to master four core content areas:

- **Finance:** Using numbers and mathematical operations to manage personal, business, and community finances (including taxation, inflation, interest rates, loans, and investment portfolios).
- **Measurement:** Applying spatial and geometric principles to estimate, calculate, and represent the physical properties of natural and man-made structures (including maps, scales, plans, perimeter, area, and volume).
- **Maps, Plans and other representations:** Interpreting multi-dimensional layouts, structural models, and grid systems to navigate real-world spaces and projects.
- **Data Handling:** Collecting, organising, analysing, and interpreting data using descriptive statistics and complex probability models to identify trends or media bias.

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

An IEB pass in Mathematical Literacy provides an excellent foundation for tertiary studies at South African and international universities. It is highly valued in fields that require analytical thinking but do not depend on pure core Mathematics.

Viable pathways for further studies and careers include:

- **Humanities & Social Sciences:** Psychology, Journalism, Political Science and Education.
- **Economic & Management Sciences:** Hospitality Management, Human Resources, Public Administration, and Marketing.
- **Health & Life Sciences:** Nursing, Sport Science and certain Environmental Studies.
- **Creative & Commercial Fields:** Visual Arts, Design, Entrepreneurship and Logistics.

Critical subject choice note:
Mathematical Literacy is not suitable for learners who intend to pursue higher education disciplines that are heavily mathematically based at a university level, such as Engineering, Actuarial Sciences, Natural Sciences (BSc), Medicine, or highly quantitative Commerce degrees (such as BCom Accounting). These fields strictly require core Mathematics.

LIFE ORIENTATION

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 grades 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

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

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)

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 CAT learners can study further in many other fields: education, computer science, economics, geography, technology, engineering, statistics, and tourism.

CAT takes what the learner has learnt in Computer Literacy (grades 1 – 9) further.

CAT 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
CAT is only presented in English.

DRAMATIC ARTS

Description

Dramatic Arts is much more than a subject that develops an appreciation for the arts. It is a subject that equips learners with lifelong skills, teaches learners how to tell meaningful stories, communicate emotions with confidence, and understand the perspectives of others.

Through drama, learners develop the ability to communicate effectively, solve problems creatively, work collaboratively, and view the world with empathy. It will also help learners improve their language skills.

The importance of the subject

Dramatic Arts develops learners' creativity, self-confidence, communication, critical thinking and problem solving skills. Learners gain the ability to tell stories, communicate effectively in front of audiences and cameras, collaborate with others, and think creatively – skills that are valuable in any career and every aspect of life.

What does the subject cover?

The subject focuses on acting, improvisation, directing, storytelling, script analysis, film and theatre studies, as well as stage technology, including lighting, sound, costumes and make-up.

How does the subject benefit learners?

Dramatic Arts prepares learners for further studies and careers in drama, film, media, communication, education, law, marketing, psychology, and many other fields. The subject builds confidence, creativity and strong communication skills that are invaluable in any profession.

Language of instruction
Dramatic Arts is only presented in English.
(Learners may request that assessment tasks and examination papers be provided in Afrikaans.)

ENGINEERING GRAPHICS AND DESIGN (EGD)

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?

EGD will contribute towards learners' technological literacy by giving them opportunities to:

- develop and apply specific skills to solve technological problems related to EGD;
- understand the concepts and knowledge used in EGD, 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

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 compulsory if overseas studies are considered (they require a social science as a subject) as well as for all agricultural studies.

HISTORY

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.

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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 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 develop 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
History is only presented in English.

INFORMATION TECHNOLOGY (IT)

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
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

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 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.

PHYSICAL SCIENCES

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, 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

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

Visual Arts is about learning to see the world differently. It develops creativity, critical thinking, problem solving and visual communication while giving learners the opportunity to express their own ideas and perspectives.

As Pablo Picasso said: *"Every child is an artist. The problem is how to remain an artist once we grow up."*

In a world driven by images, design and digital media, visual literacy is more important than ever. Visual Arts equips learners with the ability to interpret, analyse and create visual communication that is meaningful, thoughtful and original.

This subject combines practical artmaking (50%) with Visual Culture Studies and Art History (50%), allowing learners to understand both how art is created and why it matters.

Why choose Visual Arts?

Visual Arts develops skills that extend far beyond the art classroom.

Learners become creative and innovative thinkers, confident problem solvers, independent and self-disciplined workers, strong visual communicators, observant, analytical and reflective individuals, resilient learners who learn through experimentation and perseverance.

These are the very skills that universities and employers consistently identify as essential for success in the 21st century. Visual Arts also encourages learners to explore their own identity while gaining a deeper understanding of different cultures, societies and historical events through art.

What will learners do?

Visual Arts offers an exciting balance of practical and theoretical learning.

Throughout grades 10 – 12, learners explore a wide variety of artistic processes including drawing, painting, printmaking, sculpture, mixed media, photography, digital and multimedia processes.

Projects encourage experimentation, creativity and the development of an individual artistic style.

Learners study South African, African and international artists and movements, learning how art reflects culture, history, politics and society.

Rather than memorising facts, learners are taught to analyse artworks, think critically and communicate their own informed opinions.

Future study and career opportunities

Visual Arts provides an excellent foundation for a wide range of university courses and career paths, including:

Architecture, Interior Design, Graphic Design, Animation, Game Design, Fashion Design, Industrial and Product Design, Fine Arts, Photography, Film and Television, Illustration, Advertising and Marketing, Digital Media, UX/UI Design, Art Education, Museum and Gallery Curation, Heritage and Conservation, Journalism and Photojournalism.

Even learners who choose careers outside the creative industries benefit from the subject. The ability to think creatively, solve problems, communicate ideas visually and work independently is valuable in fields such as engineering, business, medicine, education and technology.

Is Visual Arts the right subject for me?

Visual Arts is ideal for learners who are curious, imaginative and willing to explore new ideas.

You do not need to be a "perfect artist" to succeed. More important than natural talent are enthusiasm, commitment, perseverance and a willingness to learn.

If you enjoy creating, thinking differently, solving problems and expressing ideas in unique ways, Visual Arts could be one of the most rewarding subjects you choose.

FURTHER STUDIES MATHEMATICS (FSM)

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 FSM an important subject?

FSM 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.

FSM 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 FSM 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?

FSM 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 FSM provide more appropriate tools for creating, exploring and expressing theoretical and applied aspects of the sciences.

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