

Collegiate Girls' High School



Subject Information Booklet
Grade Ten 2023





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Message from the Principal

Dear Parents

I realise that the task of assisting your daughter to make the correct subject choice may be a daunting one. I hope that the information shared with you in this booklet will assist you in this process.

I encourage you and your daughter to consult universities' websites in order to gain an understanding of the requirements needed for a selected course or degree. The information provided to you in this booklet about the structure of the FET curriculum, each of the subjects offered at Collegiate, and the recommendation from the school should assist you in selecting the subjects best suited to your daughter's career interest and academic ability.

We offer a wide range of subjects with a largely open choice, and we encourage learners to select a diverse combination of subjects in which they have an interest. Please read the report from the Grade Nine aptitude and interest assessments in which your daughter participated in the second term. This report provides recommendations based on your daughter's aptitudes and interests.

The Head of Academics is responsible for managing the subject combinations and choices. Occasionally, because of the number of learners who have elected to do a specific subject, we are unable to accommodate your daughter's choice of subjects. We will then discuss this with you and find the best solution. The Subject Heads are available to offer you and your daughter advice, as is Mrs Gerber. All their contact details appear in this booklet. Additional information about the academic programme at Collegiate is on our website: www.collegiatehigh.co.za .

I wish you and your daughter wisdom as you make this important choice.

Kind regards

Mrs L Erasmus

Principal



Subject Choice Structure

The **FET Curriculum in Grades Ten – Twelve** at Collegiate is as follows:

SUBJECT CHOICE FOR GRADE TEN: 2021

Compulsory subjects:

1. English (Home Language)
2. Afrikaans (First Additional Language) OR isiXhosa (First Additional Language)
3. Mathematics OR Mathematical Literacy
4. Life Orientation

Three elective subjects need to be chosen from the following:

Accounting
Computer Applications Technology (CAT)
Consumer Studies (Food or Clothing)
Dramatic Arts
French (Second Additional Language)
Geography
History
Information Technology
Life Sciences
Music
Physical Sciences
Visual Arts

Music may only be chosen if the pupil has completed Royal Schools /Trinity Grade 3 PRACTICAL and THEORETICAL.

Learners have the option of taking Dance, Further Studies English and Further Studies Mathematics as an eighth subject.



Minimum requirements for a National Senior Certificate

- Level 3 (40-49%) in a Home Language
- Level 3 (40-49%) in two other subjects
- Level 2 (30-39%) in 3 other subjects
- Complete SBA (School Assessment Portfolio) for subject less than 30%

Requirements for entrance into Bachelor's Degree study at a University

In order to achieve the minimum requirements for admission to a Bachelor's Degree programme at University, you need to satisfy the following additional requirements:

- Level 4 (50-59%) in four NCS subjects. This may include your Home Language.
- Two subjects with Level 2 (30-39%)
- Complete SBA (School Assessment Portfolio) for subject less than 30%

Note:

- A Higher Education Institution (HEI) is entitled to specify an appropriate level of subject achievement for a particular programme.
- Admission Point Score (APS) allocates point values to seven National Senior Certificate (NCS) subjects. A HEI determines the points required for programmes at their institution.

Subject Change

A learner may change a maximum of two subjects in Grade Ten. The subject change requests will need to be discussed with the Deputy Principal in charge of Academics and are subject to approval. The closing date for these changes will be indicated to the learners at the beginning of term one next year.

Please note that **Mathematics is required to take Physical Sciences**. Should a learner taking Physical Sciences, change from Mathematics to Mathematical Literacy, she will not be allowed to continue with Physical Sciences. This is a Departmental ruling.

We recommend an Accounting and Mathematics subject choice combination. Learners are allowed to take Mathematical Literacy and Accounting, but it is not recommended.



Accounting

Subject Head: Mrs L Riley

Offered as an elective subject

Accounting is more than just a school curriculum subject. It is a life skill that will stand you in good stead no matter what profession you find yourself in one day. Many of our past Accounting girls have gone on to do extremely well in this and other related subjects for which they have been acknowledged at their respective universities.

Broad overview

The subject covers the following topics over Grades Ten to Twelve:

- Financial Recordings of a Business
- Managerial Aspects: Costing; Budgeting; Resources
- Auditing
- Business Ethics
- Good Corporate Governance
- Forms of Ownership
- Legislation such as the Companies Act and International Financial Recording Standards

The subject has a “building blocks” nature so it is essential not to miss out on any of the stages.

Who should consider taking the subject?

We have an easy checklist to see if this career would be of interest to you:

1. Do you want to work with money and finances?
 2. Does the world of business fascinate you and could you see yourself making decisions and helping businesses grow?
 3. Do the words “variety, entrepreneurship, job opportunities” resonate with you?
 4. Do the words “attention to detail, and leadership” resonate with you?
 5. Do you want to follow a career that allows you continued development and career satisfaction?
 6. Does a career that is synonymous with travel, international possibilities, people interaction and creativity, interest you?
- The subject has an analytical and interpretive approach so mathematical ability (non-verbal) and English language (verbal) competency is required. Learners must have the ability to understand and apply concepts.
 - Those who wish to study any B.Com, B.Bus. Sci. or business/marketing courses and wish to be at an advantage in their first year of study should consider the subject.
 - Those who wish to be financially literate for the real world and any career that they pursue will benefit from studying Accounting.



Afrikaans First Additional Language (FAL)

Subject Head: Mrs A Nel

Offered as a First Additional Language choice with isiXhosa First Additional Language

Afrikaans is a South African language spoken in many areas of the country. It is a language that is understood by non-mother tongue users more than any other language in South Africa. It has a fairly simple grammatical structure and a depth of literature.

Broad overview

The subject covers the following topics over Grades Ten to Twelve:

- Reading
- Speaking
- Writing
- Language structures

Who should consider taking the subject?

It is compulsory to take a language on a first additional level. Collegiate offers either Afrikaans FAL or isiXhosa FAL. It is advisable to take the First Additional Language in Grades Ten to Twelve that has been studied in the GET phase. Exemptions from offering an additional language are available for recent immigrants.



Computer Applications Technology (CAT)

Subject Head: Mrs D Human

Offered as an elective subject

In a world that is dominated by computer technology, the value of Computer Applications Technology (CAT) is indisputable. A CAT learner will leave school competent in end-user computing, a life skill and an asset highly sought after and rewarded in the job market.

Broad overview:

The following end-user applications running on Microsoft Windows 10/11 are covered in the syllabus:

- Word-processing (MS Word 2019)
- Presentations (MS PowerPoint 2019)
- Spreadsheets (MS Excel 2019)
- Databases (MS Access 2019) and also
- Basic web-page design (HTML)

Apart from the end-user computing, the theoretical component of the CAT syllabus encompasses:

- Theoretical knowledge on end-user applications
- Information management
- System Technologies
- Network and Internet Technologies
- Social Implications
- Solution Development (Problem Solving)

Who should consider taking the subject?

CAT will prepare for life in the technological world. CAT is a very practical skills-based subject which will help you at university, college, and the work place. If you enjoy working with computers and its many applications, then CAT is a good subject to take. The great advantage of this subject is that it provides skills that can be applied immediately in the classroom and the workplace. Like all matric subjects, CAT will require consistent application and hard work, thus access to a desktop/laptop computer at home would be beneficial.

Many universities require the inclusion of a compulsory computer literacy course in any degree course. Students with CAT may apply for exemption in this regard. CAT is a recognized subject in the NCS and is therefore also recognized by universities. It is allocated points in the same way as any other subject. Although CAT is not a compulsory subject for any particular field of study, this subject does provide you with a range of basic skills useful in the field of Information Technology should you wish to study in this field further one day.



Consumer Studies

Subject Head: Mrs J Jooste (Food) and Mrs R Taylor (Clothing)

Offered as an elective subject

The subject Consumer Studies is a subject that focuses on developing knowledge, skills, values and attitudes in learners to enable them to become responsible and informed consumers of food, clothing, housing, furnishing and household equipment and to use resources optimally and in a sustainable manner. The subject also promotes the application of knowledge and skills in entrepreneurship and the production of quality marketable products that will meet consumer needs.

Broad overview

The subject covers:

- The Consumer - the implication of taxes, interest rates and inflation on the consumer
- Entrepreneurship – production and marketing/business planning
- Food and Nutrition – impact of food on natural and economic environment
- Clothing and Fashion
- Housing and Interiors
- Practical – once a cycle.

The theory of all sections will be covered. After completion of the theory, learners will be able to manufacture and market products from their practical component.

Learners will have the option to choose between Food or Clothing for the practical component. If the Food component is chosen, there is a fee to be paid to cover expenses, and a Chef's jacket is a necessity. If the Clothing component is offered, small needlework equipment, fabric and notions will be needed. Mrs Taylor will guide the learners with regards to the fabric requirements once she has informed them of the garment they will be making.

Who should consider taking the subject?

The main objective of the subject is to teach learners the skills to become entrepreneurs and business women in the business world and who will be able to apply knowledge and skills in the production of quality marketable products that will meet the consumer's needs. This means the following should consider the subject:

- Those who wish to create opportunities for self-employment and entrepreneurial skills related to business skills.

Those who are considering career choices in: Business Management and related Business Courses; Marketing and Management; Public Relations and Media; Hotel Management; Hospitality industry; Food Industry; Food Technology/Research; Bio-kinetics; Fashion-design; Fashion-buying; Interior Design; Consumer Services and event management; Product Development and Quality Assurance; Research in the food, nutrition, clothing and housing fields; Dietician; Entrepreneur; Extension work in government services or NGO's in community development.



Dramatic Arts

Subject Head: Mr J Batista

Offered as an elective subject

Drama explores and celebrates the human presence drawing on experiences from real life, the imagination and the realms of the media. It is the making and communicating of meaning involving performers and audiences, engaging in the suspension of disbelief. It provides a medium for personal exploration, social criticism, celebration and entertainment.

Learners who study Dramatic Arts are actively participating in a mode of learning that blends intellectual and emotional experience and offers a unique means of enquiry that contributes to knowing and understanding themselves and the world.

Broad overview

The Grade Ten course includes:

- Voice
- Movement
- Acting
- South African Theatre
- Greek Theatre
- Medieval Theatre
- Film Studies

Tasks for the year will include:

- Practical Acting Assessments
- Writing essays on Theory and Theatre History
- Theory Tests and Exams
- Reading and analyzing Plays

Who should consider taking the subject?

Dramatic Arts provides learners with a range of skills that are transferable to a variety of pathways. These skills are:

- Self-esteem and self-confidence
- Ability to speak in public
- Interpersonal skills
- Innovative thinking
- Ability to work in a team

These skills are the basis for a career in the following, among others: Theatre; Advertising; Film Industry; Teaching; Public Relations; Journalism; Law; Marketing; Events Planning.



English Home Language

Subject Head: Ms J Kromhout

Offered as a compulsory core subject

English is an international language and at Collegiate it is the medium of instruction. Competency in English is thus of the essence for success in other subjects, and it is the aim to teach the subject in such a manner that enables learners to speak and write accurately, effectively, creatively and to learn successfully.

It is a subject that can be used to stimulate discussion, encourage problem-solving, demonstrate democracy, allow spontaneous expression within a disciplined environment, and to foster an interest in life and life's joys, problems and realities.

Broad overview

The FET course has four learning outcomes:

1. **Listening and Speaking:** learn to communicate effectively, logically, politely and with confidence.
2. **Language Structures and Conventions:** learn to understand the structure and nuances of language in order to use this knowledge to improve writing, speaking and thinking skills.
3. **Reading and Viewing:** learn to comprehend passages; enjoy reading; develop insight and self-discovery.
4. **Writing and Presenting:** develop powers of observation; write imaginatively, accurately and coherently; write correctly according to context.

Why should English Home Language be compulsory?

All subjects require the ability to read with understanding and comprehension. All subjects require the skill of speaking, writing and presenting work in a logical and succinct manner. Study at tertiary level requires an advanced competency in English as even if the medium of instruction is not English, many of the texts are written in English.

On a deeper level of existence, the study of literature – which dominates the FET course – puts us in touch with our humanity and inner emotions, teaches us to think and enables us to become engaged members of society.



French Second Additional Language

Subject Head: Mrs L Dos Santos

Offered as an elective subject

French is a widely spoken language in the world, the native language in numerous countries and the most widely taught language after English. It is also a foreign language of choice for many people and as such will increase your chances of communicating in non-English speaking countries.

Broad overview

The aim of the course is to make the learners competent in communicating in French, both in conversation and in writing. It is also to provide insight into France, its literature, customs and way of life.

Reasons to take French

- Those who wish to join the international and African job market in any field. French is estimated to have about 76 million native speakers (in France) and about 235 million, fluent speakers and another 110 million secondary speakers who speak it as a second or third language, mainly in Africa.
- Those who wish to improve proficiency in English: close to 50% of English vocabulary is derived from French and statistics show that learners of foreign languages score higher on standardized tests conducted in English. Logical skills are enhanced.
- Those who wish to stimulate their mind: learning a second and even a third language can enhance cognitive and intellectual abilities. Logical skills are enhanced.
- Those who will enter the post-graduate research field: many scientific fields at post-graduate level require a reading knowledge of French or German for scholars to be able to conduct research.
- Those who will work with or in other African countries: in South Africa trade with French-speaking African countries is constantly developing, so the need for French-speaking South Africans in various fields is increasing.
- France is in fourth position in terms of world power and it does not have the debt problems facing many other major industrialised nations. (A positive sign for joint projects, business and scientific co-operation.)
- France is renowned for the quality of its high tech. (The TGV is the fastest train in the world – 515 kph.)
- French is the official language of the International Red Cross.
- France is one of the two official languages at the Olympic Games.
- French-speaking Africa represents an area larger than the USA.
- French is the most widely taught second language after English.
- French is one of the official languages of the United Nations.
- French is a major language of high tech and business in the world.
- Over 20,000 English words have the origins in French.
- In terms of number of words, French is the second largest language after English.
- France offers a range of generous scholarships to graduate students.
- Paris had 1,100 congresses in 1993 (including 400 international congresses) – a world record.



- France has the world's greatest number of Nobel Prize winners in literature (12).
- Montréal is the second largest French speaking city in the world.
- *Le Courrier Australien*, founded in 1892, is the oldest ethnic newspaper in Australia.
- PARIS is considered the capital of the world in terms of quality of life (Healey and Baker 1991).
- Be able to fully enjoy, at the cinema or on TV, the best films from the French speaking world.
- Learning French can help you improve the interpersonal skills you bring to your international career.
- French is still the most widely taught language in schools in Western Australia and abroad.
- You can do so many more interesting things on the internet if you speak French.
- (There are many high-quality internet sites available in French ranging from fashion to finance, society to science, music to medicine.... just to mention a few.)
- For those with the appropriate skills there are also possibilities for work in the following fields:
 - international business;
 - international agencies;
 - the tourism and hospitality industries;
 - the diplomatic service;
 - French research institutes;
 - as a teacher;
 - as a translator;
 - **French is spoken in over 43 countries in the world;**
 - tourism;
 - archiving;
 - fashion designing;
 - artist



Geography

Subject Head: Mrs H Shaw

Offered as an elective subject

“The study of geography is about more than just memorizing places on a map. It's about understanding the complexity of our world, appreciating the diversity of cultures that exists across continents. And in the end, it's about using all that knowledge to help bridge divides and bring people together.” Barack Obama

Broad overview

Geography is the study of the world and everything in it. That includes the physical features of the earth, the people who live on it, and the way those people use and change the earth's resources. Geography students will learn critical thinking, the ability to analyse facts, to think clearly and rationally, to understand the logical connections between ideas and to use this ability to reason and make informed judgements.

Who should consider taking Geography?

- Those with an interest in the world around them; in living more sustainably; and the relationship between people and their surrounding environment.
- Those who are interested in careers in: Climatology, Geology, Oceanography, Marine Biology, environmental-related-careers (Law, Tourism, Management), sustainable building (Construction, Architecture), Journalism, Rural and Urban Development, Travel & Tourism, Cartography, Geographical Information Systems, Aviation and Shipping.

Topics covered include the following:

- **Climatology:** through exploring the atmosphere (its composition, pressure belts and winds), we can discover the influences of weather and climate on society; learn about the effects of Climate Change and Global Warming and understand the destruction of climatic natural disasters such tropical cyclones, flooding and drought.
- **Geomorphology:** we investigate the forces that have shaped the Earth into the home we know today. By studying earthquakes, volcanoes, tsunamis and mass movement we discover how our societies and economies are drastically and dramatically affected. Structural landscapes and river systems dictate the activities that take place in certain areas, we evaluate how these landscapes are used socially and economically and the environmental effect.
- **Population and Settlement:** populations are constantly growing and changing, we will study the effects of this on societies as well as the environment. We look at reasons for population movements and how these dynamics will affect the population of countries in the future. Settlement will consider the changing patterns and challenges that cities face today and what the future of our cities might hold.
- **Development:** by exploring the development of countries; factors affecting our economies and societies; and the implications of trade, globalisation and sustainable development we can understand the delicate nature of our global economies.



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- **Water:** water is a critical resource and a pressured one in South Africa, this topic looks at where we get our water, what challenges we face in obtaining water and what techniques might help us solve our water problems in the future.
 - **Geographical Information Systems (GIS):** studies the intricacies of map making, and the use of maps as an effective visualization tool for demographic, climatic and structural information.
 - **Map work:** essential skills for anyone looking to understand the world around them. By learning to read and interpret maps, learners can develop a greater understanding of their surroundings and how they fit into the larger picture.



History

Subject Head: Mrs N Winchester

Offered as an elective subject

“If you want to understand today, you have to search yesterday” – Pearl Buck

History makes people aware of their place in society and as a global citizen. Through studying History, one gains insight into the world, how nations interact and what has made the world what it is today.

Furthermore, the study of History develops:

- one's intellectual skills
- the ability to research and gather evidence
- analytical skills
- the ability to present an argument, both orally and in writing

Brief overview

The curriculum for Grades Ten to Twelve covers:

- World history from the 1400s to the present
- The change process from disconnected societies in previous centuries to the global village of today
- South African History and the way in which it fits into the global history

Who should consider taking the subject?

- Those who enjoy learning about people in society
- Those who enjoy learning about conflicts between cultures and countries
- Those who are competent readers and who read with understanding
- Those who write fluently
- Those who wish to become: Journalists; Politicians; Lawyers; Teachers; Archaeologists; Archivists; Civil Servants; educated and mature citizens.



Information Technology

Subject Head: Mr K Gibson

Offered as an elective subject

The world is undergoing huge social and educational changes and we are witnessing a literal revolution ('4IR' or the Fourth Industrial Revolution) in the workplace. The World Economic Forum (WEF) expects a 40% change in the workplace in the next 15 years with the increased use of technology, with many existing job categories becoming obsolete and brand-new types of careers emerging. Information Technology (IT) seeks to equip pupils with the skills, knowledge, attitudes and values needed to make sense of and prosper in this brave new world. There is an enormous shortage of IT workers in SA and around the world, with a huge demand for female representation.

Broad overview:

IT, is a very broad field. The subject focuses on both the practical skills and operational knowledge to examine the wide spectrum of IT which includes:

- Focusing on problem-solving and computational thinking skills in order to create, write or code programs ('apps') and information systems -this represents about half the course
- Learning how to use modern communications technologies effectively
- Understanding the complexities and implications of the increasingly virtual world we live in and how to be responsible citizens of this new world
- How to harness computer technology to process vast amounts of data in order to solve problems and make quick but accurate decisions
- The basic workings of modern hardware and software in order to both solve problems and make judgments on the appropriate use and merits of these systems
- Basic web-page design (HTML)

Who or why should you consider taking the subject?

- Everyone who enjoys persevering with and solving puzzles and problems
- Anyone who prefers to be able to 'see what they are studying' as the biggest part of studying IT is practical
- To 'future-proof' yourself for the world ahead. The skills, knowledge, values and attitudes needed for now and the future are integral parts of the subject
- Career opportunities abound, especially for females where there are not only critical shortages of IT practitioners in general but especially in terms of female representation. This is a world-wide phenomenon
- To develop skills that allow for an incredibly wide range of careers within the IT spectrum such as website developers, programmers, IT consultants, Network Administrators, to name but a few

Some notes

- Note that Information Technology is a 'science' like Physical and Life Sciences. It has its origins in Computer Science.
- Computer Applications Technology (CAT) has a fair amount of overlap with IT but the approach is different in terms of using existing software (as opposed to creating new software) to solve problems.
- Not everyone is 'IT orientated' (as is the case with many other subjects). Mathematical ability (above 60%) is generally a strong pointer but not an absolute guide.
- The software (Delphi) is provided free of charge but can only be installed on a computer with 'Windows' (not an iPad etc.).



isiXhosa First Additional Language

Subject Head: Miss L Timba

Offered as a First Additional Language choice with Afrikaans First Additional Language

isiXhosa is an indigenous South African language. The focus of studying isiXhosa is to build fluency and understanding of the spoken and written language, as well as an appreciation for the culture associated with the language.

Broad overview

The subject covers the following topics over Grades Ten to Twelve:

- Listening
- Thinking and reasoning
- Reading and viewing
- Speaking
- Writing
- Language structures

Who should consider taking the subject?

- It is compulsory to take a language on a first additional level. Collegiate offers either Afrikaans FAL or isiXhosa FAL.
- It is advisable to take the First Additional Language in Grades Ten to Twelve that has been studied in the GET phase. The reason for this is that in order for learners to become competent Xhosa speakers, one focuses on the grammar and vocabulary.
- Certain degree courses require students to complete an indigenous language course.
- Exemptions from offering an additional language are available for recent immigrants.



Life Orientation

Subject Head: Mrs G Helmie

Offered as a compulsory core subject

Life Orientation is the study of the self in relation to others and to society. It addresses skills, knowledge, and values about the self, the environment, responsible citizenship, a healthy and productive life, social engagement, recreation and physical activity, careers and career choices. These include opportunities to engage in the development and practice of a variety of life skills to solve problems, to make informed decisions and to take appropriate actions to live meaningfully and successfully in a rapidly changing society. It not only focuses on knowledge, but also emphasises the importance of the application of skills and values in real-life situations, participation in physical activity, community organisations and initiatives.

Broad overview

The subject contains the following six topics in Grades Ten to Twelve:

- Development of the Self in Society
- Social and Environmental Responsibility
- Democracy and Human Rights
- Careers and Career Choices
- Study Skills
- Physical Education

What are the benefits of studying Life Orientation

It is a unique subject in that it applies a holistic approach to the personal, social, intellectual, emotional and spiritual development of learners. It also focuses on physical growth and development, as well as fitness and motor skills. This encourages the development of a balanced and confident learner who can contribute to a just and democratic society, be a productive member of society and the economy, and encourages an improved quality of life for all.



Life Sciences

Subject Head: Mr R Marriott

Offered as an elective subject

The study of Life Sciences enables learners to understand themselves (from a physiological aspect) and the world around them (from an ecological aspect). By the end of Grade Twelve, they should be able to critically debate scientific issues, be aware of the value of conserving natural resources and understand the requirements of maintaining a healthy body.

There is a great deal of emphasis on scientific method, so Life Sciences is not merely knowledge recall. It requires learning and understanding, logical thinking, analysis and application of this knowledge. It is strongly recommended that girls who do not get above 60% for Natural Science in grade 9, not chose Life Sciences.

Broad overview

The FET Life Sciences curriculum covers four knowledge areas which are introduced in Grade Ten and built on during Grades Eleven and Twelve:

- Life at the molecular, cellular and tissue level which includes the study of DNA, cells, genetics etc.
- Life processes in plants and animals which explains how plants and animals work i.e. physiology
- Environmental studies which includes ecology, pollution and population studies
- Diversity, change and continuity which includes genetics and evolution

Who should consider taking the subject?

Those who wish to pursue career opportunities in:

- Medicine, including Nursing and all related fields
- Research industries in Biotechnology, Microbiology, amongst others
- Environmental fields, including Environmental Law and Environmental Science
- Marine Biology
- Agriculture



Mathematics

Subject Head: Mrs T Botha

Offered as optional core subject with Mathematical Literacy

Mathematics is known as the “Queen of Sciences” because it is needed for all science and technology. It plays an important role in everyday life and applications of Mathematics cover a wide variety of fields such as Physics, Chemistry, Engineering, Life Sciences, Medicine and Economics. Problems in these disciplines often give rise to new developments in Mathematics.

The study of Mathematics also develops a person’s ability to reason logically and to analyse a problem carefully. Unsolved problems provide unlimited opportunities for ingenuity and creativity.

Broad overview

The subject covers the following topics over the FET course:

- Functions
- Number Patterns, Sequences, Series
- Finance, Growth and Decay
- Algebra
- Differential Calculus
- Probability
- Euclidean Geometry and Measurement
- Analytical Geometry
- Trigonometry
- Statistics

Who should consider taking the subject?

- Those with an interest in problem-solving who can think in the abstract and reason logically.
- Those who have shown an ability in Mathematics (60%+ in Grade Nine Mathematics) as a good grounding in the subject is needed.
- Those who intend pursuing a career path that involves Mathematics or requires Mathematics for entrance to tertiary study AND those who have proven ability.



Mathematical Literacy

Subject Head: Mrs A Vincent

Offered as optional core subject with Mathematics

Mathematical Literacy is the practical application of basic Mathematical concepts. All work is related to everyday situations. It is a fully designated subject and many professions can be followed with Mathematical Literacy as a subject, e.g. Law (LLB), Nursing (BSc), Business and Financial Management (BCom). (Please ask Mrs Vincent for a comprehensive list.)

Mathematical Literacy should not be seen as an “easy” option in place of Mathematics. It has a different focus – concentrating on the everyday use of figures.

Broad overview

The subject covers the following topics over the FET course:

- Interpreting and Communicating Answers and Calculations
- Numbers and Calculations with Numbers
- Patterns, Relationships and Representations
- Finance
- Measurement
- Maps, Plans and other representations of the Physical World
- Data Handling
- Probability

Who should consider taking the subject?

- Those who find Mathematics difficult to understand or those who find the “logic” of Mathematics “illogical”.
- Those who battle with abstract Grade Nine concepts such as factorizing trinomials.
- Those who wish to study the Arts, Social Sciences, and areas such as Media Studies at tertiary level. Bridging courses are offered in faculties which require specialized Mathematics e.g. B.Com.



Music

Subject Head: Mrs G Agenbag

Offered as an elective subject

“To stop the flow of music would be like the stopping of time itself – incredible and inconceivable” – Aaron Copeland

The Music Department is a vibrant department affording many girls the opportunity to participate in producing Music in various forms. Subject Music encourages critical thinking and develops many cognitive functions in the brain.

Broad overview

Subject Music is divided into four components and covers the following over the three-year course:

- Music History
 - Baroque to 20th Century style periods in Western Art Music
 - Sound production and orchestral instruments and the human voice
 - Popular Music and Jazz
 - Musical Theatre
 - Introduction to indigenous African music and other South African genres
 - The Music industry
- Theory
 - Rudiments of music
 - Harmony, melody writing and compositional techniques
- Aural, Composition and Improvisation
 - Focuses on singing, clapping of rhythms, melody-writing (composition), the listening to and analysing of musical genres, analyses of musical scores, arranging of compositions for orchestral instruments, identifying instruments and improvisation
- Practical
 - Minimum practical requirement for music as a subject in Grade Ten is Grade Three (Trinity/Unisa/Royal Schools)
 - Pieces and technical work will be assessed every term
 - An ensemble piece is also included in the repertoire
 - A minimum of an hour's daily practice is expected
 - Pupils are encouraged to play a Trinity Practical Examination each year

Facts to consider when choosing Music as a subject:

- Good time management/planning
- Discipline
- Therapeutic/stress reliever
- Self-motivation
- Teamwork
- Memory skills development
- Build memories



Physical Sciences

Subject Head: Dr C Radue

Offered as an elective subject

Physical Sciences is a study of the nature and properties of matter and their interactions. Although this branch of Science is considered a study of non-living systems, there are many aspects of Physical Sciences that feature in the living world, such as the biochemical systems in living organisms, or the laws which enable movement. The two branches of Physical Sciences studied at school level are Physics and Chemistry.

Broad overview

Physics is the science of matter, energy, space and time. It explains ordinary matter as combinations of fundamental particles, interacting through four fundamental forces. It describes the many forms of energy – motion, forces, electromagnetics and waves.

Chemistry is the branch of the natural sciences dealing with the composition of substances and their properties and reactions. It is the study of atoms, molecules, and the interactions they undergo called chemical reactions.

Physical Sciences requires both good linguistic as well as mathematical skills. Learners are taught practical and cognitive skills such as accurate observation, analysis and evaluation of data. Emphasis is placed on the steps involved in scientific method. Learners are required to plan and design experiments in order to answer certain questions. They are taught to identify a problem and how to formulate solutions to problems of a scientific nature.

Who should consider taking the subject?

- Those who have a genuine interest in the Sciences.
- Those with sound language and mathematical ability, imperative in order to cope with demands at senior level.
- Those with above 60% in Mathematics; English and the Science component of Natural Sciences in Grade Nine.
- Those who have a strong work ethic.
- Those who intend pursuing studies and careers in fields that require Physical Science. These include careers in the Medical field, Engineering and Industrial field; the Pure Sciences fields such as Geology and Climatology; the Biological field such as Biochemistry. A minimum of 60% in Grade Twelve is required to apply for these courses.
- However, do not choose Physical Sciences to “keep your options open”.
- Remember that Physical Sciences has almost double the work load of any other subject.



Visual Arts

Subject Head: Mrs J Jones

Offered as an elective subject

Visual Arts focuses on Fine Arts (such as drawing, painting, printmaking etc.) and the translation of thoughts and expression into a visual medium. The subject also comprises Visual Culture Studies (the study of the visual expressions of different cultures and historical groups which explores the nature of art and how art mirrors society). Visual Arts offers a view on art, history and culture which is interesting and fascinating.

Broad overview

Visual Arts involves both practical work and the History of Art, with half the final marks allocated for History of Art and half for the practical component.

Practical work:

- Drawing
- Painting
- Installation
- Printmaking
- New Media
- Sculpture

History of Art:

- The elements of art, describing and analyzing artworks, learning about the social and historical events that shaped specific societies and studying the paintings, sculptures and architecture from ancient to modern times and from international and South African sources.
- Requires an ability to look critically, interpret and respond to images in fluent written English

Who should consider taking the subject?

- A learner must be genuinely interested in Visual Arts as it is an intensive and time-consuming subject.
- Learners must have a definite artistic ability in drawing.
- Those who wish to pursue careers such as:
 - Architecture
 - Fashion Design
 - Graphic Design
 - Industrial Design
 - Interior Design
 - TV Production, Photography
 - Professional Art
 - Digital Art
 - Film
 - Anthropology, Archaeology, Heritage Studies



Below is a comparison of the topics covered in IT compared with those in CAT. In a nutshell, the difference lies in the practical component: CAT works in programs such as Word, Excel etc while IT teaches you how to write the programs and do the engineering side of computing. It is for this reason that we have started teaching the Grade 8 and 9 girls to code using scratch to give them insight into the subject IT.

Topic Area	Sub-topics	
	INFORMATION TECHNOLOGY	COMPUTER APPLICATIONS TECHNOLOGY
Solution Development	Algorithms and Problem Solving Introduction to Solution Development Application Development Software Engineering Principles	Word Processing Spreadsheets Databases Fourth Application
Systems Technologies	Introduction to Computers Hardware Software Computer Management	Concepts of Computing Hardware Software Computer Management
Communication Technologies	Networks E-communication	
Network Technologies		PANs LANs and WLANs
Internet Technologies	Internet World Wide Web Internet Services	Internet World Wide Web E-communications
Data and Information Management	Data Representation Database Management Database Design	
Information Management		Find and Access Data and Information Process Data and Information Present Solution
Social Implications	Legal Issues Ethical Issues Social Issues Environmental Issues Health Issues Computers and Society	Impact on Society Legal and Ethical and Security Issues Health and Ergonomic Issues Environmental Issues



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