TMC

Thomas More College

SUBJECT CHOICES 2019

"May your choices reflect your hopes,

not your fears."

Nelson Mandela

Choosing a Subject Package for the IEB

National Senior Certificate

The information in this booklet is designed to help you and your families make rational and informed decisions when choosing your Matric (FET) Subject packages. These decisions mark the beginning of your journeys into adulthood as you all begin to take ownership of your lives and start plotting your trajectories. Some of you have been waiting excitedly for this moment, whereas some of you are feeling quite the opposite! Either way, decisions have to eventually be made and we better get to it!

Grade 10 pupils in 2018 will follow the National Curriculum, continuing in Grades 11 and 12, and culminating in a **National Senior Certificate** (NSC) at the end of Grade 12. At Thomas More College, pupils will write the Matric examinations that are set by the **Independent Examinations Board** (IEB).

Subject Choices

There is always a tendency among pupils to believe that certain subjects are ‘more fun’ and a ‘soft option’! While we do encourage pupils to follow their passions and play to their strengths, they realise that both aptitude and hard work are required to succeed in every subject. Moreover, while parents must not make their children’s choices for them, we believe that they are uniquely able to guide them in making prudent decisions at this crucial period of their lives.

Every pupil will be required to choose no fewer than **SEVEN SUBJECTS**.

Four of these subjects are **COMPULSORY** but the remaining three subjects are to be chosen from each of the three groups as shown below:

FOUR COMPULSORY SUBJECTS

Home Language (English)	**1st Additional Language (Zulu or Afrikaans)**	**Core Maths OR Maths Literacy**	**Life Orientation**

THREE CHOICE SUBJECTS

Three additional chosen subjects, **one from each** of the following groupings:

GROUP 1	GROUP 2	GROUP 3
Physical Science	**Physical Science**	**Life Science**
History	**Geography**	**History**
Life Science	**Dramatic Arts**	**Accounting**
Geography	**EGD**	**Visual Arts**
I.T	**Business Studies**	**Design**
		Business Studies

PLEASE BE AWARE THAT THE GROUPS CANNOT BE ALTERED AS WE ARE BOUND BY STAFFING AND TIMETABLE DEMANDS.

Furthermore, the only 8th subjects on offer are:

GERMAN AND EQUESTRIAN

Both courses are offered from <u>OUTSIDE TMC AT YOUR OWN COST</u>.

Note:

1. The regulations stipulate that a pupil may change one or more subjects in his or her Grade 10 year. Any desired changes in Grade 11 will be more difficult to make, and will only occur in exceptional circumstances, or if it is in the best interests of the child. **No changes in Grade 12 will be permitted.**

2. Certain subjects will cater for a maximum of 26 pupils, based on ability, due to a single teacher, or group, in the discipline. These include EGD, Dramatic Arts, Visual Arts, Design or IT. These are allocated in consultation with teachers and parents and, if necessary, pupils.

3. **For a pupil to study Physical Science, Core Mathematics is a requirement.**

4. In order to qualify for a university entrance, pupils have to achieve a minimum of:

a. 50% in their home language (English)

b. 50% in **three** other subjects

c. 40% in the **two** other subjects

d. Life Orientation: Pupils are required to pass Life Orientation; however, different universities have different requirements with regard to Life Orientation results. Each faculty at a university has a sub–minimum number of points that applicants are required to meet. Different systems are applied and most faculties also require pupils to have written the **National Benchmarking Test (NBT)** (which is set for the universities) in their matric year.

THE FOLLOWING IS A BRIEF SYNOPSIS OF CHOICE SUBJECTS TO ASSIST YOU IN YOUR DECISION

ACCOUNTING

Accounting focuses on processing and communicating financial information. It deals with logical, systematic and accurate selection of recording financial information as well as analysing and interpreting financial and managerial reports.

AIMS:

The subject of accounting develops the pupils' knowledge, skills, values, attitudes and ability to make meaningful and informed personal and collaborative financial decisions in the economic and social environment.

SKILLS NEEDED:

- Pupils need to have a mathematical ability as Core Mathematics is now a requirement in order to study Accounting
- Pupils will need to be able to work in a logical and systematic manner
- Pupils need to work accurately, thoroughly and neatly
- Problem solving skills

SKILLS LEARNED:

- Collect, record and analyse financial information
- Present and communicate financial information
- Relate the skills learned to real life situations
- Organize and manage own finances and activities responsibly and effectively
- Identify and solve problems in a logical manner

THE FUTURE:

Pupils who have studied accounting at school will find bridging the gap to commerce subjects at tertiary institutions a lot less demanding. Extensive research has been done on pupils who have not studied accounting at school and it seems that they have a higher risk of dropping the courses as they are unable to cope with the demands. Such courses include B.Comm, B. Compt, Business Science etc. Accounting is a life skill that can be applied in any career path that one chooses.

VISUAL ART

The subject Visual Arts offers pupils a vibrant environment where they can study various aspects of the visual image and visual culture, from their creation to the way in which they are interpreted and used by society. Visual Art is a platform for the pupils to develop their skills in both the practical and theoretical component of the subject. The Visual Art theoretical component examines the history of Art from the Ancient through to the Conceptual with particular emphasis on visual literacy skills. Visual Arts helps pupils equip themselves with the skills they need to develop their individual talents and allows them to grow as creative individuals in our ever expanding art and design world.

QUALITIES REQUIRED:

- The pupils must be creative with an ability to think laterally.
- The pupil must be self-motivated, with a positive, disciplined attitude.
- An ability to meet deadlines.
- Must have an ability to draw.
- An ability to maintain consistent effort and persevere through challenges without giving up.
- An above average ability in English.

DESIGN

Design instigates the responsible, ethical, sustainable and process-formulated response/solution to problems, needs and opportunities that are presented in our constantly changing world. The study of Design produces individuals, who are able to function in creative career fields, but also develops skills that can be used in the fields of commerce, marketing and advertising, engineering and the built environment, social sciences and humanities. The study of Design also stimulates the development of discerning consumers with informed value judgments and creates responsible users of designed products. Through Design, pupils are encouraged to demonstrate originality, creativity and imagination in devising practical and efficient design solutions, while developing attitudes that are empathetic to the needs of humankind, to self-sustainability and to holistic problem-solving.

INTEGRATED APPROACH:

- Design integrates theory and practice in a holistic process to produce two and three dimensional products that serve a purpose in real life.
- Through the integration of research into the design process, **constructive thinking** is emphasised over factual retention. Knowledge arises from experience, making it easier to understand, remember and apply.

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- Must have an ability to draw.
- An ability to maintain consistent effort and persevere through challenges without giving up.

BUSINESS STUDIES

Studying Business Studies is the ticket to obtaining the expertise that is needed in today's competitive business world. Our aim is to produce informed, imaginative, participative, contributing and reflective business practitioners who can dynamically perform a range of interdependent business operations.

Pupils will acquire, and be able to apply, essential business knowledge, skills and principles, to productively and profitably conduct business in an ever-changing environment.

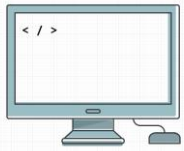
TOPICS COVERED INCLUDE:

- The micro, market and macro environments
- Contemporary socio-economic issues
- Forms of ownership
- Creative thinking and problem solving
- Stress and crisis management
- Professionalism and ethics
- Entrepreneurship
- Business functions – Marketing; Production; Human Resources; Finance
- Industrial Relations
- Corporate Social Responsibility
- Insurance
- Investment

CAREERS:

The field of Business Studies includes a wealth of different goals and objectives. The choices are endless. Do you wish to study for a degree in Business Science, or a Diploma in Business Management, or Human Resources? Or maybe you are after a professional qualification in Labour Relations or Customer Relations. As well as being able to secure formal employment, pupils will be able to pursue sustainable entrepreneurial and self-employment career paths.

I.T (INFORMATION TECHNOLOGY)



Information Technology focuses on activities that deal with the solution of problems through logical thinking, information management and communication.
Information Technology will enable pupils to understand the principles of modern computing through the use of current programming language, hardware and software, and how these apply to their daily lives, to the world of work, and to their communities.

It involves the integration of theory such as hardware, software, networking and the social impact of computers and practice in the form of structured experiential learning of programming and databases. This affords pupils the opportunity to gain skills and knowledge as designers of software and managers of data networks.
The subject also provides orientation for further study in this field. Information Technology specifically forms a good basis for the programming components of Bachelor of Science degrees in general and specifically engineering and computer science. It also forms a good basis for studies in business sciences such as a Bachelor of Commerce in Information Systems.

COMPULSORY REQUIREMENTS:

- A modern home PC, with internet access.

DRAMATIC ARTS

Speech is our chief means of expressing our thoughts and feelings and communicating with other people. Drama affords opportunities for invention and expression leading to a better understanding of human situations and behaviour.

COURSE OUTCOMES:

- Critical and Creative thinking
- Effective Teamwork
- Time Management
- Communication Skills
- Social Awareness
- Problem-solving

These Outcomes are achieved through participation in cultural and aesthetic contexts. Career and entrepreneurial opportunities are explored as each pupil works to develop their moral awareness, social responsibility and creativity.

SKILLS NEEDED:

- a good command of the English language
- self-discipline
- commitment and passion for the Arts

POSSIBLE CAREERS:

- Theatre Performance and Management
- Design & Fashion (costumes, set)
- Technical (lighting, sound)
- Advertising
- Human Resources & Public Relations
- Hotel Management & Hospitality
- Education
- Radio and Television, Film & Graphic Animation
- Law & Politic

GEOGRAPHY

Modern Geography is no longer the “old” Geography of simply learning and remembering facts. It provides challenges of learning and applying a range of skills to enable pupils to acquire, process and manipulate the vast amount of information now so readily available. The subject matter is now far more topical, challenging and pertinent to the modern world.

Pupils are able to apply their own observations and make sense of the world around them. Geography occupies a unique position in the school curriculum in that it incorporates and complements skills from all subjects especially Mathematics, History, General Science, Computer Applications Technology and Business Economics Students. These skills include statistical interpretation using data analysis, interpretation, evaluation and report writing; Active primary research in fieldwork using the scientific method; Investigative approaches in studying issues; information technology using the Internet in a responsible and effective manner; drawing and graphing; spatial understanding using maps, aerial photographs and simple GIS systems.

Learning Geography requires a large degree on pupil involvement in problem solving and decisions about real life issues. The subject can be considered many subjects in one covering elements of physical (geomorphology, climatology) and human geography (social, economic and political).

The study of Geography will help one to understand the environmental, social and political problems of one’s country far better. Skills acquired in the study of Geography help form an excellent foundation for tertiary study and lends itself toward a wide variety of career opportunities including careers in Administration, Climatology, Education, Environmental Management, Information Management, Journalism, Planning (Rural & Urban), Remote Sensing, Research, Travel & Tourism, Cartography, Crime analyst, Disaster Planner, Statistician, Surveyor, Market Research Analyst, Geologist, Town Planner, Engineering and many more.

HISTORY

History is perhaps the least understood of all subjects. It is a vibrant, skilled and creative-thinking discipline. This equips a person for taking his/her place in society and develops a focused, critical and problem–solving mind.

History is a skilled-based subject that has changed dramatically over the past 20 years. Gone are the days of learning essays by heart and being told what to write down. Pupils are now expected to articulate and empathise with the perspectives of others, form logical and rational arguments after carefully weighing evidence and understand how various forces shape and mold society.

Consider the following:

HISTORY IS FOR LEADERS

- Mr. Harry Oppenheimer, former Chairman of Anglo-America, looked for a study of Politics, Philosophy, Economics and History in those he employed.
- Mr. Clem Sunter recognizes the need for a study of History in entrepreneurs and business people
- The former CEO of Telkom is a History graduate
- The former CEO of Coca Cola is a History graduate.

We regularly receive incredible feedback from past pupils who are grateful for the practical and theoretical grounding they receive in History at TMC. Past pupils have gone on to study in a wide variety of fields and feel confident in their abilities to think for themselves, formulate logical arguments and synthesize huge volumes of sources into lengthy essays.

LIFE SCIENCE

Life Sciences is an exciting and dynamic subject that touches every aspect of our lives, from our health and behaviour patterns, to the challenging issues that confront us.

In Grades 10 to 12, Life Science builds upon the broad concepts and processes taught in the Grade 8 and 9 electives. The subject in the FET phase has a number of overlapping topics which are divided into four main strands:

1. Life at the molecular, cellular and tissue level explores themes such as biochemistry, genetics and the study of microorganisms.
2. Life processes in plants and an animal discovers the processes needed to stay alive and the structure of the various systems in living organisms.
3. Environmental studies teach about the interaction of living organisms with each other and their surroundings. This field of study is commonly referred to as Ecology.
4. Diversity, change and continuity look at how to classify living organisms and include the study of how living organisms have evolved from earlier forms.

Pupils need to be able to express themselves confidently in the written form in tests and examinations. Essay writing and research assignments are important components of the assessment syllabus. Practical work including doing and designing experiments, microscope work, biological drawings and field work forms a large component of the subject.

Life Sciences combines well with other subjects and it prepares pupils for modern life. The scientific way of thinking and handling problems is used effectively and is closely linked to Physical Science, Geography and Mathematics to a lesser degree. Pupils are required to problem solve, think critically and apply their knowledge. Many careers need an understanding of Life Sciences. All careers linked to medicine, agriculture, bio-engineering, psychology, marine biology, education and forestry need Life Sciences

PHYSICAL SCIENCE

AIMS:

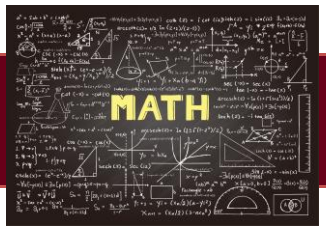
The Science pupil is provided with a clear idea of the place of Physical Science in civilisation, and is prepared, through the subject content and discipline, for responsible citizenship. The subject is divided into two main components, namely Physics (laws of the universe and applied Maths) and Chemistry (the study of the Periodic Table and its elements). Essentially the pupils are being taught two subjects in one. At the end of their matric year, they are expected to write two, 3 hour examinations in which they are tested on content from grades 10, 11 and 12.

SKILLS:

Core Mathematics is essential as it is a requirement to study Physical Science.
Assessment involves a theoretical as well as practical component.
Pupils are given opportunities to make “discoveries”, learn measuring techniques, and practice the recording and treatment of observations, drawing conclusions, and the presentations of results. Analytical thinking plays an important role in the solving of problems. The pupils are tested using a variety of questioning levels. Namely: recall, comprehension, application, analysis, synthesis and evaluation.
To enjoy this subject a pupil must have an enquiring mind and a passion for problem solving. Listening in class and understanding what has been taught is essential for the application process that will follow after new content has been introduced. Application of laws and principles plays an integral role in the understanding of Physical Science.

CAREERS:

Physical Science is essential for further University studies in Medicine, Pharmacy, Radiology, and Agriculture, Pure Sciences.



CORE MATHEMATICS

Mathematics is the gateway subject to the vast majority of tertiary qualifications. Mathematics focuses on analytical and problem solving skills but also instills academic discipline and rigor and perseverance in pupils. All pupils should aim to continue with Mathematics for as long as possible. If as they approach their final year in school they are adamant that they will not need Mathematics in their future career they can then convert to Mathematical Literacy. The extra years doing Mathematics will help them achieve an excellent mark in Mathematical Literacy.

Mathematics (Grade 12) is divided into two exam papers, each 3 hours long.

PAPER 1:

Algebra, Equations and Inequalities
Patterns and Sequences
Finance, Growth and Decay
Functions and Graphs
Differential Calculus Probability

PAPER 2:

Statistics
Analytical Geometry
Trigonometry
Euclidean Geometry and Measurement.

The Mathematics department also encourages all students to participate in Mathematics Olympiads as competition mathematics helps prepare students for NBTs and the type of examining they will encounter at University.

Those pursuing high level professions like Finance, Engineering, Research, Computer Technology and Medicine will study at universities who will demand high level achievement in Mathematics.

MATHS LITERACY

Mathematical Literacy provides pupils with an awareness and understanding of the role that mathematics plays in the modern world. It enables pupils to develop the ability and confidence to think numerically and spatially in order to interpret and critically analyse everyday situations and to solve problems.

AIMS

Using the methods refined by TMC and information from the National Curriculum it is our aim to enable learners to:

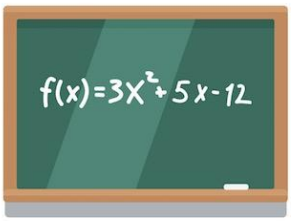
- Use mathematical process skills to identify, pose and solve real-life problems creatively and critically;
- Work collaboratively in groups to enhance mathematical understanding;
- Organize, interpret and manage authentic activities in substantial mathematical ways that demonstrate responsibility and sensitivity to personal and broader societal concerns;
- Collect, analyse and organize quantitative data to evaluate and critique conclusions;
- Communicate appropriately by using descriptions in words, graphs, symbols, tables and diagrams;
- Realise that mathematical literacy contributes to entrepreneurial success.

CURRICULIM

- Finance, including personal and basic business finance
- Measurement: Perimeter, areas and volumes in real-life context
- Map work and scale
- Data handling
- Probability

Are these Subjects Similar (Core and Literacy)

No, they are 2 totally different subjects. Mathematical Literacy is not a watered down course. It is not a Higher Grade / Standard Grade dichotomy. The differences are not only in the CONTENT but in the METHOD of teaching and of ASSESSING.



AP MATHEMATICS

Advanced Programme Mathematics is a three year course for pupils who have demonstrated some mathematical aptitude and interest. It is offered as an eighth subject from Grade 10. Lessons take place outside of the general timetable.

The syllabus covers topics from the disciplines of Algebra, Differential Calculus, Integral Calculus, Probability and Statistics.

If one is to begin to interact with the world around us with any true depth of understanding and a critical eye, one needs to begin with the root of all sciences: - Mathematics.

A.P. Mathematics is designed to give pupils an entryway into this journey of life-long learning. The topics covered introduce the fundamental concepts of much of the work covered in university courses that are Science-based, but also have applications in Information and Communication Technology, Commerce, Medicine, Social Sciences, Psychology and many others.

In a rapidly evolving and increasingly technological human environment, people who are adaptable and able to create will be invaluable. We can't all be consumers of technology, we also need innovators, inventors, developers and analytical thinkers.

We have for many years received positive feedback from university pupils. They have found that their A.P. Mathematics experience has allowed them to engage more confidently and with greater understanding with their course content. A.P. Mathematics gives these pupils a distinct advantage over those who have not had the opportunity.

ENGINEERING GRAPHICS & DESIGN

EGD aims to develop the pupil's ability to address problems and exploit opportunities in a creative and innovative way. Pupils are equipped to apply cognitive skills, such as critical and creative thinking, analysis, synthesis and logic to practical, real life design and engineering problems.

This subject equips pupils with the skills, knowledge, attitudes and values to function in an engineering and design environment. It also stimulates an innovative and entrepreneurial spirit and enhances pupil's technological literacy. The pupil will thus be equipped to appreciate the interaction between peoples' values, society, environment, human rights and technology.

Application of the design process helps to solve Civil, Electrical and Mechanical problems analytically and graphically and to understand the concepts and knowledge used in Engineering Graphics and Design.

SKILLS COVERED:

Drawing skills covered involve the following disciplines:

- Instrument drawing according to scale (using a portable A3 drawing board)
- Freehand drawing
- **CAD (Computer aided design). We use AutoCAD and Inventor**

SCOPE:

EGD as a subject gives pupils the opportunity to:

- Communicate ideas graphically by employing drawing instruments and computer–based tools.
- Learn by solving problems in a creative way.
- Carry out practical projects and tasks using the process skills of investigating by means of meaningful research, designing, making, evaluating and communicating.
- Learn by dealing directly with human rights and social and environmental issues in their project work.
- Use and engage with knowledge in a purposeful way.

- Create more positive attitudes, perceptions and aspirations towards manufacturing, engineering and technology-based careers.

EGD includes but is not limited to:

- Applications of the principles of Mathematics, Physical Sciences, Computer Applications Technology 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.
- Enabling pupils 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.

We look forward to seeing you all at the

SUBJECT CHOICE EVENING

On TUESDAY the 14th AUGUST!