

Modern English School Cairo



Hana El Morshedy Y11B

**Year 11 and 12 Options Booklet
2019-2020**

Contents

Page 2	Introduction
Page 3	General Certificate of Education (GCE), Advanced Supplementary (AS), A2 and Advanced Levels (A Level)
Page 3	Higher Education in Egypt
Page 4	Higher Education in the UK
Page 5	Higher Education in North America (USA and Canada)
Page 6	Higher Education Elsewhere
Page 7	Advanced Level courses at MES Cairo
Page 8	Arabic
Page 9	Art
Page 10	Biology
Page 11	Business Studies
Page 12	Chemistry
Page 13	Computer Science
Page 14	Design and Technology
Page 15	Drama and Theatre Studies
Page 16	Economics
Page 17	English Literature
Page 18	French
Page 19	Geography
Page 20	History
Page 21	Information Technology
Page 22	Mathematics
Page 23	Physics
Page 24	Psychology
Page 25	Spanish

MODERN ENGLISH SCHOOL CAIRO



Dear Parents/Guardians and Students,

The time is here for students currently in Y10 and Y11 to make decisions concerning the courses they wish to take next academic year. In making these decisions, parents and students will wish to consider carefully future career intentions and university requirements, as well the students' personal interests and subject strengths.

This booklet gives details of the GCE Advanced Level courses available for next academic year at MES Cairo. Students in Y10 also have the option of considering the International Baccalaureate Diploma programme, details of which can be found in the separate IB Diploma booklet.

All students will study **PE** and participate in **Homeroom Community Forum (HRCF)** throughout Y11 and Y12. Also all students must continue to study the following subjects to meet the Ministry of Education requirements:

- Arabic
- Religious Studies

Arab students must also study:

- Civil Studies (Egyptian Ministry Syllabus)

In addition to their academic studies, students are encouraged to participate in a range of enrichment opportunities, including After-School Activities, In-School Community Service and House Leadership roles. These activities are valued by universities and by scholarship awarding bodies as evidence of the students' broader interests and ability to commit to their own development.

If you have further questions, please do not hesitate to contact Mr Richard Cranston (Assistant Head Yr11-12), Mr Sarah Clingan (Deputy Head, British Section), or myself, Mrs Linda Talbot (Head of Secondary, British Sections)

You are encouraged to read this booklet very carefully, complete the accompanying Preliminary Options Survey form and return it to the appropriate Administrative Officer: Ms Marwa Khattab. The deadline for submitting your Preliminary Options Survey form is **Sunday 9th December 2018** at the latest.

Please respect the importance of making your decision a firm one. We design the options subject blocking based on the information you provide us with by **Wednesday 12th December 2018**. Late returns and/or subsequent course changes may not be accommodated.

Yours sincerely,

Mrs Linda Talbot
Secondary Headteacher,
British Section

General Certificate of Education (GCE) Advanced Subsidiary (AS), A2 and Advanced Levels (A Level)

GCE Advanced Levels are the long established 'gold standard' of the British education system. Universities around the world like A Level students because of their advanced level learning in subjects they will study at university.

AS Level is the first half of an A Level; A2 is the second half, with both the AS and A2 combining to make a full A Level. Undergraduates in overseas universities have generally followed this pattern in their final years of secondary education:

IGCSE/GCSE	➔	AS level in 4 (or 5) subjects	➔	A2 in 3 of these subjects to make them up to A Levels	➔	University
------------	---	----------------------------------	---	--	---	------------

There are a small number of subjects that can only be taken as a complete AS Level with no opportunity to take A2 later, or a full A Level that only has an exam at the end of Y12. The subjects this applies to explain the details in their course description.

Grades A - E are passes at AS and A* - E are passes at A Level, though Universities will normally specify higher grades in specific subjects relevant to the subjects to be studied at University. A* grades were awarded at A level for the first time in May/June 2010; the A grade remains the highest award at AS level. Generally, students following an A Level programme are required to have a minimum of 3 A level passes for entry to overseas Universities and this eliminates the need for a foundation year at University.

Higher Education in Egypt

Egyptian Universities and AUC usually gives a higher priority to students who have studied at Advanced Level. For some courses, A levels or IB Diploma Higher Level subjects are a specific requirement. For example:

- For **Engineering** (at AUC) students must have passed IGCSE Maths, Physics, Chemistry and a fourth science course or Information Technology. Additionally, passes are required in Maths and either Physics or Chemistry at AS level, or Maths A Level, or an IB Diploma featuring Maths, Physics and Chemistry (Maths must be taken in the Higher Level, while Physics and Chemistry could be taken in the Standard Level).

The **Egyptian Universities** have the following requirements:

- **School of Medicine / Pharmacology / Dentistry / Physical Therapy:** Biology and either Physics / Chemistry / Mathematics at AS Level, or Biology at A Level, or an IB Diploma with Biology and Chemistry at Higher Level.
- **School of Engineering:** Mathematics and either Physics / Chemistry / Biology / Accounting at AS Level, or A Level Mathematics, or an IB Diploma with Physics and Mathematics at Higher Level.

Note: The above are only guidelines, which may change from year to year. Students should always contact the University for confirmation of entry requirements.

Under Egyptian Ministry of Higher Education regulations, for applications to universities in Egypt only the examinations taken in the last 3 years before university entrance are considered. Arab students must complete 12 years of schooling.

Higher Education in the UK

Standards in UK universities are recognised as among the best in the world. Most courses for a first degree (Bachelor of Arts or Science) last three years. Some vocational courses are longer, for example Medicine, Dentistry and Architecture. There are higher education colleges and universities throughout the UK, ranging from large universities with 30,000+ students to small Colleges with fewer than 1,000 students.

There are specific entry requirements for each **UK University** course. The entry requirements will almost certainly be described in terms of UK examination grades or according to the new tariff point score:

A Level grade	AS Level grade
A* = 56 points	A = 20 points
A = 48 points	B = 16 points
B = 40 points	C = 12 points
C = 32 points	D = 10 points
D = 24 points	E = 6 points
E = 16 points	

Note: a subject taken at AS then continued to A Level counts once only. As a general guide, a minimum tariff point score of 96 - 112 (or an American GPA of 3.00 - 3.5) is required for a degree course in a UK University.

Every university in the UK accepts either A Level or International Baccalaureate Diploma qualifications. Each individual university and each department within a university has particular entry requirements in terms of A Level grades. Universities may also stipulate a particular grade in particular subjects. Additionally, Admissions Tutors will look for evidence that the student has the personal qualities and interpersonal skills to make a success of University study.

The following websites provide useful information on specific courses and higher education institutions:

www.ucas.com (for advice for overseas students, information on how to apply, and a Course and University Search facility)

www.he.courses-careers.com (to find institutions offering a specific course)

www.britishcouncil.org.eg (for information on applying from outside the UK)

www.naric.org.uk (for information on how qualifications compare to UK qualifications and advice on studying in the UK)

Each reputable university has its own website; students are encouraged to check the websites of universities they are interested in for up to date course information.

All applications to UK universities must be made through the Universities and Colleges Admissions Service (UCAS), to which MES Cairo has direct access. Mr Richard Cranston, our UK Higher Education Coordinator, will help students to complete the UCAS application form on-line. UCAS accepts applications to 5 universities on a single form and forwards the application to the institutions the student wishes to apply to. Any application must include a supporting reference from the School. The deadline for applications is normally mid-January for top universities; Oxford, Cambridge, Medicine, Dentistry and Veterinary courses all have a deadline of 15th October.

Studying in the UK

Many thousands of families from around the world have made the UK their home, creating a richly diverse, open-minded, multicultural society. Moreover, the UK has a long history of welcoming international students to study in its universities and colleges. There are 1.8 million full-time and part-time students in higher education, including over 300,000 international students from 180 different countries. They choose the UK to enhance their level of English (the language of international business and science) and to broaden their experience in a truly international and cosmopolitan culture, as well as to gain internationally respected qualifications in their chosen field.

There are people at each University and College who are ready to answer students' questions, help them through the application process and support them while they are in the UK. Many universities and colleges organise a programme of events before students start their course to welcome them and to help them make new friends and get used to their new surroundings. Social and cultural activities are often run for international students throughout the year. Universities and colleges also provide a variety of clubs and societies.

Fees

Studying in the UK is good value for money. Degree courses are generally shorter than in other countries, because of the rigorous entry requirements, making them more affordable. Universities charge fees for tuition. These can usually be paid in instalments. The student will also need accommodation and day-to-day living costs.

Higher Education in North America (USA and Canada)

Studying in the United States and Canada

Colleges in the US and Canada actively recruit international students in an effort to create a more multi-cultural campus. As there are over 2000 colleges and universities in North America, every school has different requirements and deadlines for applications. When deciding on a university in North America, one must consider several factors, some of which are not directly related to the university itself: 1) What size of school do I want to attend? 2) Where do I want to be geographically? 3) Do I want to be in an Urban, Suburban, or Rural area? 4) What kind of climate (weather) do I want to be in? These are all important factors in choosing a university because there are excellent schools throughout North America.

All colleges and universities in North America recognise both British and IB curricula. However, universities differ on the requirements of each programme. Many schools in the US give conditional acceptance based on IGCSE results. Highly competitive universities might require certain results in AS and A2 exams depending on the Subject major the student chooses. The SAT and/or ACT is required by most schools in North America, however, a very few colleges may not require these exams. It is always best to contact the specific university directly to inquire about the SAT or ACT requirements for British and IB students. When contacting a university always ask to speak to an admissions officer or directly email the head of admissions. When looking for the academic requirements for a specific college or university, check the university website. Most schools do not list specific grade/exam result requirements. Colleges and Universities in North America do not base admission solely on academic results, other factors that are considered are letters of recommendation, extra-curricular activities, personal statement (these differ from university to university) and special talent.

All universities offer a pre-college orientation specific to international students. This is a time for students to become familiar with the university and living abroad. Universities also offer special counseling and academic advising for international students as well. Some even offer specific residence halls that house only international students (these are an option, not a requirement for international students).

Fees

The fees structure in North American colleges and Universities is as varied as the number of universities themselves. Almost all universities offer a payment plan. Tuition for international students is not any different

than the out-of state tuition. Room and board (meals) are offered at almost all universities and colleges. Some universities and colleges have a residency requirement for first and second year students. This means that you must live in a residence hall for two years before you may move off campus. All schools provide an estimated cost of attendance which is based on tuition, room and board, cost of books, spending money, and travel expenses. To find the estimated cost of attendance at a specific college or university see the university website. As an international student, you will be required to provide a financial statement from your parents' bank showing a balance of at least the estimated cost of attendance.

International students that hold an American passport can be eligible for financial aid at US universities. Upon arriving on campus, contact the financial aid office for more information. Further details about USA and Canadian college application a scan be obtained from Ms Christine Flake (cflake@mescairo.com).

Higher Education Elsewhere

AS/A Level qualifications and the IB Diploma are internationally recognised by universities around the world. If you are interested in attending a university anywhere other than Egypt or the UK, speak with Mr Richard Cranston, Mrs Sarah Clingan, Mrs Linda Talbot or Ms Suzie Sheehan, who is responsible for European Universities.

Advanced Level Courses at MES Cairo

At MES Cairo we offer a range of subjects at AS and A2 Level; we vary these from year to year, depending on students' needs and preferences. Whilst it is not possible to guarantee every combination of subjects, we ask students for their preferences early in their IGCSE year and design the curriculum accordingly.

For the academic year 2019-2020, we are offering the following subjects (subject to sufficient student interest to make the course offer viable). We must have a minimum of 4 students committed to a subject before we will agree to offer it; exceptions to this policy will be considered by the Headteacher only if the course is an absolute pre- requisite for future study. **Students can take no more than 5 courses, and most students will take 4 courses.** We limit the number of courses to 5, because Advanced Level studies are significantly harder than IGCSE and 5 subjects represents a very demanding programme for students. The final Options Form with the subject blocking will be distributed on 12th December 2018.

Except where otherwise indicated, students must achieve at least a grade C at IGCSE in the subject **before** they can proceed to an AS Level in that subject. The AS level must be studied in the first year and the A2 level the following year, in order to achieve a full A Level in the subject.

For students in Year 11 (2019-2020):

A Level Arabic	AS English Literature
AS Art	AS or 1st year of A Level French
AS Biology	AS Geography
AS Business Studies	AS History
AS Chemistry	AS Applied Information and Communication Technology
AS Computer Science	AS Maths
AS Drama and Theatre Studies	AS Physics
AS or 1st year of A Level Design and Technology	AS Psychology
AS Economics	AS or 1st year of A Level Spanish

For Students in Year 12 (2019-2020) only:

A2 Art	A2 English Literature
A2 Biology	A2 History
A2 Business Studies	A2 Applied Information and Communication Technology
A2 Chemistry	A2 Maths (Pure & Mechanics) or (Statistics)
A2 Computer Science	A2 Physics
A Level, 2nd year of Design and Technology	A2 Psychology
A2 Economics	

*A small number of IGCSEs are offered as one year, 8 period 2 week courses in some subjects to compliment students' previous IGCSE passes. Students would take IGCSE courses instead of AS Level if they are seeking less challenge than a full AS Level course.

ARABIC A LEVEL (Edexcel)

(Although previous study of IGCSE Arabic in this subject is helpful, it is not a requirement for this course)

The qualification structure has changed this year, A levels will now be fully linear, with students sitting their exams at the end of the two-year course. **There is no longer an AS qualification.**

The Pearson Edexcel Level 3 Advanced GCE in Arabic (listening, reading and writing) consists of three externally-examined papers that assess listening, reading and writing skills. These assessments will be set and marked by Pearson. Students must complete all assessments in May/June in any single year.

Content summary:

The new Assessment Objective around knowledge and understanding of Arabic culture means students will need to demonstrate this in the Writing components. The new A Level will cover compulsory themes: social issues and trends, political and/or intellectual and/or artistic culture and set works (literature and film) which will be assessed through a target language essay. There will also be an independent research project assessed in Paper 1 and listening, reading and writing which will be assessed in one question in Paper 3.

Paper 1: Translation into English, reading comprehension and writing (research question) in Arabic (*Paper code: 9AA0/01)
Written examination: 2 hours 30 minutes 40% of the qualification 80 marks

Paper 2: Translation into Arabic and written response to works (*Paper code: 9AA0/02)
Written examination: 2 hours and 40 minutes 30% of the qualification 110 marks

Paper 3: Listening, reading and writing in Arabic (*Paper code: 9AA0/03)
Written examination: 2 hours and 15 minutes 30% of the qualification 60 marks

Ms Safaa El Bagoury
Head of Arabic Department
sbagoury@mescairo.com

ART AS/A LEVEL

(Students must have a minimum grade C at IGCSE in this subject before starting this course)

The course builds on the skills developed at IGCSE. Students have the opportunity to explore artistic processes in depth through drawing and painting as they develop ideas to express their individual, personal responses to a range of themes. All projects will include:

- Direct observation from primary sources and secondary sources
- An emphasis on the development of ideas
- Media experimentation and exploration
- Critical appraisal of the work of others
- Critical evaluation of ideas and artwork

The assessment objectives for all components are:

- Personal Qualities
- Manipulative, artistic skills and analytical skills
- Aesthetic qualities
- Knowledge and critical understanding.

Sketchbook

Students must keep a sketchbook. The sketchbook combines visual and written exploration and is a time-based record. It will contain evidence of the development of students' ideas, including reference to the work of others and experimentation with mediums. It is a vital tool in supporting and stimulating the student's artistic process and has a major role in the production of preparatory work. It encourages creative thinking; records problem solving and can improve the student's general learning skills.

Assessment: Art AS level

Assessment is through the following components:

Component One	Coursework. Portfolio and final outcome. Candidates explore and develop coursework based on a theme, producing a portfolio of work leading to a final outcome. Themes may be set by the teacher or candidates may choose one in consultation with their teacher. <i>Externally assessed</i>	AS 50% A L 25%
Component Two	Controlled Test. Students select from a question paper with externally set range of themes for interpretation. Candidates create support studies prior to a controlled 15 hr exam in which they produce a final outcome. <i>Externally assessed</i>	AS 50% A L 25%

Assessment: Art A2 Level

Students wishing to consolidate their experience at AS Level can do so by taking component three the following year:

Component Three	Personal Study. A critical and visual appraisal undertaken in a written and practical form. Candidates investigate a theme, idea, concept or process that is personal to them. The personal investigation is an in-depth study that demonstrates the candidate's ability to carry out independent research through to a fully realised conclusion. During the investigation, candidates work is supported by written analysis. <i>Externally assessed</i>	A L 50%
-----------------	--	---------

Ms J Bennett

Head of Visual Art

jbennett@mescairo.com

BIOLOGY AS/A LEVEL

(Students must have a minimum grade C at IGCSE in this subject before starting this course)

If students enjoyed and were successful at IGCSE Biology they will do well in AS/A-Level Biology. This course builds directly on the knowledge gained at IGCSE and allows students to explore Cellular theories, Human Physiological and Ecological concepts at a much greater depth. Students will use this knowledge and apply it to new contexts and solve real world problems. The course encourages creative thinking and problem-solving skills which are transferable to any future career path.

Biology AS Level Content:

- Cell Structure
- Biological Molecules
- Enzymes
- Cell Membranes and Transport
- Cell and Nuclear Division
- Genetic Control
- Transport
- Infectious Disease
- Immunity
- Ecology
- Gas Exchange

Biology A2 Level Content

- Energy and Respiration
- Photosynthesis
- Regulation and Control
- Inherited Change
- Selection and Evolution
- Biodiversity and Conservation
- Gene Technology

Students who choose Advanced Biology need good problem-solving skills and a logical mind. Previous study of IGCSE Chemistry is also helpful.

Many interesting and varied career opportunities exist for the successful biologist: medicine, marine biology, pharmacy, medical research, veterinary science, agriculture, teaching, optometry, dentistry, physiotherapy, botany are just a few.

Biology is assessed in the same way as other AS/A2 Sciences:

Assessment: Biology AS Level

Paper 1	1hr multiple choice	31%
Paper 2	1hr structured questions	46%
Paper 3	Practical examination	23%

Assessment: Biology A2 Level

A2 Level carries the marks forward from AS		
Paper 4	1hr structured questions	38%
Paper 5	Planning, Analysis and Evaluation	12%

The time for the practical examination for all three Sciences is 2 hours.

Mr Brendan Rainford
Head of Science
brainford@mescairo.com

BUSINESS AS/A LEVEL

(Students need a grade C in this Subject or IGCSE Mathematics and IGCSE English before starting this course)

This course suits students wishing to study Business Studies at university and those who wish to develop an understanding of the nature and scope of business activity in society. Students need well developed reasoning, evaluation and judgement skills. Emphasis is placed on the application of concepts and issues to the local context where possible.

The course enables students to:

- Develop a critical understanding of organisations and the markets they serve
- Be aware of the economic, environmental, ethical, governmental, legal, social and technological issues associated with business activity
- Develop decision-making and problem-solving skills in the light of evaluation
- Develop skills of communication, analysis, interpretation and presentation of both qualitative and quantitative management information

The AS and A2 courses cover the following topics:

- Business and its Environment
- People in Organisations
- Marketing
- Operations and Project Management
- Business Finance and Business Accounting

The A2 course has an additional topic: Strategic Management

Assessment: Business AS Level

As level % weighting	A level
----------------------------	---------

Paper 1	1hr 15mins – Section A four short answer questions; Section B one essay from a choice of three questions	40%	20%
Paper 2	1hr 30mins – Two data response questions	60%	30%

Assessment: Business A2 Level

Paper 3	3hrs – Case Study five questions, plus one essay question from a choice of two.		50%
---------	---	--	-----

Mr Christopher Stock
Head of Commercial Studies
cstock@mescairo.com

CHEMISTRY AS/A LEVEL

(Students must have a minimum grade C at IGCSE in this subject before starting this course)

If students enjoyed and were successful in IGCSE Chemistry, they will do well in AS/A-Level Chemistry. The content of the course builds upon the knowledge and understanding established from the IGCSE course and will allow exploration of the advanced theories and processes that make Chemistry an exciting and rewarding subject. Biology and Physics students will find some common areas of understanding between the Science subjects. The course encourages creative thinking and problem-solving skills which are transferable to any future career path.

Chemistry AS Level Content:

- Atoms, Molecules and Stoichiometry: Calculations and Quantitative Analysis
- Atomic Structure: Electron configurations and orbitals
- Chemical Bonding: Types of bonds and molecular shapes
- States of Matter: Properties of solids, liquids and gases
- Chemical Energetics: Enthalpy and Hess's Law
- Equilibria: Le Chatelier's Principle and Equilibrium Constants
- Electrochemistry: Redox Chemistry, Industrial Processes
- Reaction Kinetics: Collision Theory and Maxwell-Boltzmann Distributions
- Inorganic Chemistry: Periodicity, Group II, Group VII, Nitrogen and Sulphur Chemistry
- Organic Chemistry: Hydrocarbons, Halogen Derivatives, Hydroxy and Carbonyl Compounds

Chemistry A2 Level Content:

- Chemical Energetics: Born-Haber Cycles
- Equilibria. Acid-base reactions
- Electrochemistry: Reduction and electrode potentials
- Reaction Kinetics: Order of a Reaction and Catalysis
- Inorganic Chemistry: Group IV and Transition Metal Chemistry
- Organic Chemistry: Aromatic Molecules, Carboxylic Acids and Derivatives, Nitrogen Compounds and Polymerisation

Applications of Chemistry:

- The Chemistry of Life
- Applications of Analytical Chemistry
- Design and Materials

Chemists may follow various career paths, including chemical research and development, environmental scientist, food scientist, forensic scientist, chemical engineering and materials scientist. Also, Chemistry is a requirement for the study of Biochemistry, Medicine, Pharmacy, Dentistry and Veterinary Science.

Assessment: Chemistry AS level

Paper 1	1 hour multiple choice	31%
Paper 2	1 hour structured questions	46%
Paper 3	Practical examination	23%

Assessment: Chemistry A2 level

Paper 4	1 hour structured questions	38%
Paper 5	Planning, Analysis and Evaluation	12%

Mr Brendan Rainford
Head of Science Department
brainford@mescairo.com

Computer Science AS /A Level

(Students must have a minimum grade C at IGCSE in Mathematics before starting this course)

Cambridge International AS Level and A Level Computer Science are accepted by universities and employers as proof of essential knowledge and ability.

Progression

Cambridge International A Level Computer Science provides a suitable foundation for the study of computer science or related courses in higher education. Equally, it is suitable for candidates intending to pursue careers or further study in computer science or ICT, or as part of a course of general education.

Cambridge International AS Level Computer Science constitutes the first half of the Cambridge International A Level course in computer science and provides a suitable foundation for the study of computer science at Cambridge International A Level and then for related courses in higher education. Depending on local university entrance requirements, it may permit or assist progression directly to university courses in Computer Science or some other subjects. It is also suitable for candidates intending to pursue careers or further study in computer science or ICT, or as part of a course of general education.

The units you will study:

Year 1 - AS Level

Part 1 - Theory Fundamentals

- Information representation
- Communication and internet technologies
- Hardware
- Logic gates and logic circuits
- Processor fundamentals
- Assembly language programming
- System software
- Data security, privacy and integrity
- Ethics and ownership
- Database and data modelling

Part 2 – Fundamental Problem-solving and programming skills

- Algorithm design and problem solving
- Stepwise refinement and structure charts
- Programming and data representation
- Structured programming
- Software development

Year 2 – A2 Level

Part 3 – Advanced theory

- Data representation
- Communication and internet technologies
- Boolean algebra and logic circuits
- Processor and computer architecture
- System software
- Security
- Monitoring and control systems

Part 4 – Further problem-solving and programming skills

- Computational thinking and problem solving
- Algorithm design methods
- Recursion
- Further programming
- Object oriented programming (OOP)
- Low level programming
- Declarative programming
- Software development

DESIGN AND TECHNOLOGY AS or A LEVEL

(Students must have a minimum grade C at IGCSE in this subject before starting the course)

Edexcel's GCE in Design and Technology: Product Design course, seeks to develop students' knowledge, understanding, skills and application for designing products. Product design encompasses a wide range of design disciplines but is firmly rooted in the skills required to design and make high quality products. Products that are fit for purpose, satisfy wants and needs, enhance our day-to-day lives and, most importantly, give students the opportunity to demonstrate their design and technology capability.

This qualification structure has changed this year, students must opt, when choosing their options, whether they will complete the AS or the A Level in Design and Technology.

AS Assessment:

Component 1: Principles of Design and Technology – 2 hour examination. The paper includes calculations, short-open and open-response questions. as well as extended-writing questions focused on:

- o Analysis and evaluation of design decisions and outcomes, against a technical principle, for prototypes made by others
- o Analysis and evaluation of wider issues in design technology, including social, moral, ethical and environmental impacts.

100 Marks are available for this Unit, which make up 50% of the AS course.

Component 2: Independent design and make project. Students to undertake a small-scale design, make and evaluate project in response to a realistic contextual challenge set by the exam board, taking into account the needs and wants of the user. The project will consist of a portfolio and a prototype.100 Marks are available for this component, which make up 50% of the AS course.

A Level Assessment:

Component 1: Principles of Design and Technology – 2 hours and 30 mins written examination. The paper includes calculations, short-open and open-response questions, as well as extended-writing questions focused on:

- analysis and evaluation of design decisions and outcomes, against a technical principle, for prototypes made by others
- analysis and evaluation of wider issues in design technology, including social, moral, ethical and environmental impacts.

120 marks are available for this component which make up 50% of the A Level course.

Component 2: Independent Design and Make Project. The investigation report is internally assessed and externally moderated. Students will produce a substantial design, make and evaluate project which consists of a portfolio and a prototype. The portfolio will contain approximately 40 sides of A3 paper (or electronic equivalent). This component is 50 % of the qualification of which 120 marks are available.

Miss Shereen Taha
Head of Technology
staha2@mescairo.com

DRAMA AND THEATRE STUDIES AS LEVEL

(Students must have a minimum grade C at IGCSE in English as a First Language, or a minimum grade C in IGCSE English Literature, in order to be considered for enrolment on this course)

Drama and Theatre is a course for students who have an interest in how play texts are brought to life in performance. AS Drama and Theatre is thought-provoking, challenging and exciting. Much of the time is spent working practically with others. Students also have to work as individuals in researching material and demonstrating written understanding.

Only AS Level Drama and Theatre is offered.

AS Level Drama and Theatre

Component 1: Exploration and Performance

Internally assessed (externally moderated) 60% of the qualification

Content Overview

A group performance/design realisation of one key extract from a performance text and informed by the methodology of one influential practitioner.

A monologue or duologue performance/design realisation from one key extract from a different performance text.

There are three parts to the assessment:

- 1) a portfolio –mixed media presentation of learning experiences
- 2) the group performance
- 3) a monologue or duologue performance

Component 2: Theatre Makers in Practice

Written examination: 1 hour 45 minutes 40% of the qualification Content overview

Section A: Live Theater Evaluation

Section B: Page to Stage: Realising a performance text

At AS: A minimum of one complete and substantial performance text and a minimum of two key extracts from two different texts placed in context of the whole text.

Students must study the work and methodologies of one influential theatre practitioner (individual or companies) at AS and two theatre practitioners at A level.

Ms J Bennett

Head of Visual Art

jbennett@mescairo.com

ECONOMICS AS/A LEVEL

(Students need a grade C in this Subject or IGCSE Mathematics and IGCSE English before starting this course)

This course provides quite extensive coverage of the fundamental principles of Economics. This course suits those interested in specialising in this field at university or who may have an interest in the wider issues discussed, such as politics and government intervention in the economy. Students need to pay close attention to current national and international events through television programmes, online news articles and economic journals.

The syllabus is intended to:

- Provide a basis of factual knowledge of economics
- Encourage the development in the student of:
 - A facility for self-expression, not only in writing but also in using additional aids such as statistics and diagrams where appropriate
 - The habit of using works of reference as sources of data specific to economics
 - The habit of reading critically to gain information about the changing economy in which we live
 - An appreciation of the methods of study used by the economist and of the most effective ways in which economic data may be analysed, correlated, discussed and presented.

The AS and A2 courses cover the following Economics topics:

- The basic economic ideas and resource allocation division of labour and money functions
- The price system and the micro economy
- Government microeconomic intervention
- Statistical measurement in the macro-economy
- Government macro-economic intervention

Assessment: Economics AS Level

Paper 1	1hr multiple choice – 30 questions	AS 40%	A2 20%
Paper 2	1hr 30mins data response and structured essay – one compulsory data response question and a choice of one from three essay questions	AS 60%	A2 30%

Assessment: Economics A2 Level

Paper 3	1hr 15 Mins multiple choice – 30 questions		A2 15%
Paper 4	2¼hr data response and structured essay – one compulsory data response question and a choice of two from six essay questions		A2 35%

Mr Christopher Stock
Head of Commercial Studies
cstock@mescairo.com

ENGLISH LITERATURE A/AS LEVEL

(Students must have a minimum grade C at IGCSE in English as a First Language; previous study of Literature at IGCSE Level is an advantage but not a prerequisite)

The Cambridge A Level and AS Level 'Literature in English' course encourages students to develop their interest in literature through studying a range of texts and translating critical understanding into essays composed in formal, analytical prose.

Their analysis will focus on the way language, form, structure and context shape the ways in which we might read a text. Such an approach demands: detailed knowledge of the text; critical understanding of its cultural setting; skills in close language analysis; a personal response from amongst the various interpretative possibilities.

The examinations are 'closed book'.

Content at AS Level:

Paper 3: Poetry and Prose (2 hours)

The aim of this module is to develop students' understanding of a novel and of a range of poetry, usually by a named poet. In the examination students will be required to write two extended essays, one on each of the texts.

Paper 4: Drama (2 hours)

The aim of this module is to develop students' understanding of the literary genre of drama and of the dramatic qualities of play texts. In the examination students will be required to write two extended essays, one on each of the plays they have studied.

Content at A2 Level:

Paper 5: Shakespeare and other pre-20th century texts (2 hours)

The aim of this module is to enable students, through their detailed study of a Shakespeare play and one other text written before the 20th century, to increase their understanding of different critical interpretations and the importance of context. In the examination, students will be required to write two extended essays, one on each of the texts studied.

Paper 6: 20th Century Literature (2 hours)

The aim of this module is to enable students, through their detailed study of two texts written during the 20th century, to increase their understanding of different critical interpretations and the importance of context. In the examination, students will be required to write two extended essays, one on each of the texts studied.

Who might enjoy this course?

A student who enjoys reading and thinking about challenging ideas; who enjoys discussion and debate; who finds analytical writing exciting and empowering; who is independent-minded and curious about the world; who is as interested in big ideas as they are in the nuances of language – a student, in brief, who is interested in just about everything.

Mr Martin O'Connor

Head of English

moconnor@mescairo.com

FRENCH AS/A LEVEL

(Students must have a minimum grade B at IGCSE in this subject before starting this course)

The Edexcel AS/A Level in French has been developed to inspire all students. This course of study will enable students to develop an advanced level knowledge and understanding of the French language, the culture of France and other Francophone countries, as well as practical and valuable language and transferable study skills. This specification will help to prepare students for higher education and enhance their employability profile.

The aims and objectives of this qualification are to enable students to:

- Enhance their linguistic skills and promote and develop their capacity for critical thinking
- Develop control of the language system to convey meaning, using spoken and written skill
- Develop their ability to interact effectively with users of French in speech and in writing
- Develop knowledge about matters central to the society and culture
- Equip themselves with transferable skills such as autonomy, resourcefulness, creativity

There is a stand-alone AS qualification (no longer counting towards the A level). A levels will now be fully linear, with students sitting their exams at the end of the two-year course.

Assessment AS

Paper	skills	Marks	Timing	Proportion
1	Listening Reading Translation (French to English)	64	1 hour and 45 minutes	40%
2	Writing: 2 essays of 300 words each 1 essay on a book studied or 1 essay on a movie studied Translation (English to French)	60	1 hour and 40 minutes	30%
3	Speaking 1 Stimulus card (5mns) 2 one chosen sub theme to talk about out of 2	72	27 to 30 minutes (15 mins for Preparation are Included)	30%

Assessment A Level

Paper	skills	Marks	Timing	Proportion
1	Listening Reading Translation (French to English)	80	2 hours	40%
2	Writing: 2 essays of 300 words each 1 essay on a book studied and 1 essay on a movie studied Translation (English to French)	120	2 hours 40 minutes	30%
3	Speaking 1 Stimulus card (5mns) 2 Research project (2mins presentation and 10mns discussion)	72	21 and 23 minutes (15 mins for Preparation are Included)	30%

Oumar Thiam
Head of British World Languages
othiam@mescairo.com

GEOGRAPHY AS/A LEVEL

(Students must have a minimum grade C in English is an essential requirement for access to this course, a C grade in Math's is preferable but not essential. Studying IGCSE Geography is not a requirement for this course)

Students develop an understanding of the main processes within physical and human geography. They will gain an awareness of the relevance of geographical analysis to understanding and solving contemporary human and environmental problems. Students will also increase their knowledge of the main components of human and physical geography and use geographical skills to demonstrate how they are interrelated.

The AS and A2 Geography course examines aspects of both human and physical geography and includes the following topics:

- Population change
- Settlement dynamics
- Hydrology and fluvial geomorphology
- Atmosphere and weather
- Rocks and weathering
- Migration

A2 course options include the following topic areas (students study two topics for each paper):

Paper 2 – Advanced Physical Geography

- Tropical environments
- Coastal environments
- Hazardous environments
- Hot Arid and Semi-Arid environments

Paper 3 - Advanced Human Geography

- Production, location and change
- Environment management
- Global interdependence
- Economic transition

Assessment:

AS level Geography: Candidates sit 2 papers (Core Physical and Core Human Geography) each 1 hour 30 minutes long. Each paper forms 50% of AS total marks and 25% of A level total marks.

A2 level Geography: Candidates sit 2 papers (each paper is one and a half hours long). Each paper forms 25% of the complete A level total marks.

Mrs. Jennifer Rainford
Head of Humanities
jrainford@mescairo.com

HISTORY AS/ALEVEL

(Although a minimum grade C at IGCSE in this subject is helpful, studying IGCSE History is not a requirement for this course; a grade C or better in IGCSE English is a pre- requisite however)

Students study aspects of the past and develop an understanding of the complexity of human societies. The study of AS and A2 History helps students understand the present, not because events repeat themselves, but because all social, political, cultural and economic developments have their roots in the past and cannot be explained without reference to these roots. Students will also develop a range of skills that are useful in everyday life, including evaluation and analysis of information, evidence, report-writing, independent thought and making informed judgments on issues.

The **AS History** course is a combination of **International History and Modern European History** and is assessed through two examination papers. The first is a one hour source paper on the topic of **The Search for International Peace and Security, 1919 - 1945**. In part (a) candidates will be expected to consider two sources on one aspect of the material. Part (b) requires candidates to use all the sources and their knowledge of the period to address how far the sources support a given statement.

The second examination paper lasts for 1.5 hours and students are required to answer two questions from a choice of four. There will be two parts to each question. Part (a) requires a causal explanation while part (b) requires consideration of significance and weighing the relative importance of factors.

Paper 2 includes the following topics:

The Russian revolution, 1894-1917

Origins of World War I, 1900-1914

The **A2 History** course requires students to have already completed the AS History course, and consists of two components. The first component assesses a student's understanding of differing interpretations of History. In preparation, they will study differing interpretations that historians have produced, with a particular focus on the over-arching Key Question, **'Who was to blame for the Cold War?'**

In the one-hour examination, candidates will be given an extract from an historian's writing. The author of the extract will not be identified, nor will candidates be asked to identify the author. One extract will be set on each of the topics. The extract will be no more than 600 words in length. There will be a single question, asking candidates what they can learn from the extract about the interpretation and approach of the historian who wrote it.

The second component is a depth study entitled **Europe of the Dictators, 1918–1941**. The examination lasts for 1.5 hours and students are required to answer two questions. The questions will be a combination of causal explanations and an assessment of the relative importance of factors.

The in-depth study includes the following topics:

Russia, 1924–1941

Hitler's Germany, 1929–1941

Mrs. Jennifer Rainford
Head of Humanities
jrainford@mescairo.com

Information Communication Technology AS/A Level

(Students must have a minimum grade C at IGCSE in this subject before starting the course)

In a world where information technology (IT) is constantly changing, individuals increasingly need technological and information literacy skills that include the ability to gather, process and manipulate data. The impact of IT on society is enormous and as the percentage of businesses and households connected to communication networks such as the internet grows, so does the need for individuals who understand these new technologies.

This syllabus encourages learners to become effective and discerning users of IT. It helps them to develop a broad range of IT skills, knowledge and understanding. Learners study the structure and use of IT systems within a wide range of organisations, including the use of a variety of computer networks. As a result, learners gain an understanding of IT system life cycles, and how these affect the workplace. They also learn about the wider impact of IT on society in general. At A Level, learners also study simple programming for the web relevant to their own use of IT.

Progression

Cambridge International A Level Information Technology provides a suitable foundation for the study of IT or related courses in higher education. Equally it is suitable for candidates intending to pursue careers or further study in IT, or as part of a course of general education. Cambridge International AS Level Information

Technology is the first half of Cambridge International A Level Information Technology. Depending on local university entrance requirements, the qualification may permit or assist progression directly to university courses in information technology or some other subjects.

Year 1 - AS Level

Part 1 - Theory Units

- Data, Information, Knowledge and processing
- Hardware and Software
- Monitoring and control
- E-safety and health and safety
- The digital divide
- Using networks
- Expert systems

Part 2 – Practical Units

- Spreadsheets
- Database and file concepts
- Sound and video editing

Year 2 – A2 Level

Part 3 –Theory Units

- Emerging technologies
- The role and impact of IT in society
- Networks
- Project management
- System life cycle

Part 4 – Practical Units

- Graphics creation
- Animation
- Mail Merge
- Programming for the web

It is imperative to know that IT can only be taken if you are **not doing Computer Science in AS/A2**

Shereen Taha

Head of Technology

Staha2@mescairo.com

MATHEMATICS

(Students must have a minimum grade C at IGCSE in this subject before starting this course)

Cambridge International A & AS Level Mathematics is accepted by universities and employers as proof of mathematical knowledge and understanding. Successful candidates gain lifelong skills, some of which are listed below.

- A deeper understanding of mathematical principles
- The further development of mathematical skills including the use of applications of mathematics in the context of everyday situations and in other subjects that they may be studying
- The ability to analyse problems logically, recognising when and how a situation may be represented mathematically
- The use of mathematics as a means of communication
- A solid foundation for further study

The AS course covers the following topics:

- Calculus: differentiation and integration and their applications
- Algebra: equations, quadratic functions, binomial theorem, progressions
- Circular measure: radian as a measure of angle, arcs and sectors, segments and triangles
- Co-ordinate geometry: gradients, equations of straight lines, intersecting, perpendicular and parallel lines
- Trigonometry: identities and angle equations
- Functions: inverses, composites, domain and range
- Mechanics 1: forces & equilibrium, kinematics of motion in a straight line, Newton's laws of motion, energy, work & power

The A2 course builds on knowledge gained at AS level and covers the following topics:

- Pure Mathematics: functions, calculus, vectors, trigonometry, complex numbers, circular measure, co-ordinates, iterations, further calculus, further trigonometry
- AND
- Statistics: representation of data, permutations & combinations, probability, discrete random variables, the normal distribution.
 - At AS Level, students sit two papers; Paper 1 Pure Mathematics (1hr 50 mins) worth 30% of the final grade and Paper 4 Mechanics (1hr 15mins) worth 20% of the final grade. At A2 Level students sit a further two papers; Paper 3 Pure Mathematics (1hr 50 mins) worth 30% of the final A Level grade and Paper 5 Probability and Statistics (1hr 15 mins) worth 20% of the final A Level grade.

All students need a scientific calculator (a Casio fx-991ES PLUS or similar is recommended) for this course.

Mr Sean Rayner
Head of Mathematics
srayner@mescairo.com

PHYSICS AS/A LEVEL

(Students must have a minimum grade C at IGCSE in this subject and in IGCSE Mathematics before starting this course)

Students who have enjoyed and been successful at IGCSE Physics will do well in AS/A-Level Physics. Students will study the main theoretical concepts of Physics and apply those concepts to solve real world problems. The use of Mathematical proofs means it is strongly recommended that students have a good understanding of Mathematics. This course encourages creative thinking in new contexts and problem-solving skills which are transferable to any future career path.

Physics AS Level

Content:

- Physical Quantities and Units
- Measurement Techniques
- Kinematics
- Dynamics
- Density and pressure
- Work, Energy, Power
- Deformation of Solids
- Waves
- Superposition
- Electric Fields
- Current of Electricity
- DC Circuits
- Particle and Nuclear Physics

Physics A2 Level

Content:

- Physical Quantities and Units
- Measurement Techniques
- Motion in a Circle
- Gravitational Field
- Ideal Gases
- Temperature
- Thermal Properties of Materials
- Oscillations
- Waves Communications
- Electric Fields
- Capacitance
- Current of Electricity
- Electronics
- Magnetic Fields
- Electromagnetic Induction
- Electromagnetism
- Alternating Currents
- Quantum Physics
- Nuclear Physics

In addition to at least a grade C IGCSE pass in both Physics and Mathematics, students choosing AS/A-Level Physics need good problem-solving skills and a logical mind. Having studied IGCSE Chemistry is also helpful.

Many interesting and varied career opportunities exist for the successful physicist: medicine, engineering, aviation, telecommunications, space research, power production, veterinary science, radiography, air traffic control, mineral exploitation, teaching and computer science are just a few.

Assessment: Physics AS Level

Paper 1	1hr multiple choice	31%
Paper 2	1hr structured questions	46%
Paper 3	2 hr Practical examination	23%

Assessment: Physics A2 Level

Paper 4	2hr structured questions	38%
Paper 5	1hr 15min Planning, Analysis and Evaluation	12%

Mr Brendan Rainford
Head of Science
brainford@mescairo.com

PSYCHOLOGY AS/A LEVEL

(A grade C or above in IGCSE English and IGCSE Mathematics are essential requirements in order to take this course. C or above in one Science is preferable, but not essential.)

Psychology is the scientific study of the mind and human behaviour.

The aims of CIE AS and A Level Psychology are:

- To provide an introduction to psychological concepts, theories, research findings and applications
- To create an understanding of the range and limitations of psychological theory and practice
- To encourage candidates to explore and understand the relationship between psychological findings and everyday life
- To develop skills of analysis, interpretation, application and evaluation
- To promote an appreciation and understanding of individual, social and cultural diversity
- To develop an understanding of ethical issues in psychology, including the moral and ethical implications of psychological research
- To explore and understand the relationship between psychological findings and social, cultural and contemporary issues
- To study psychological principles, perspectives and applications
- To improve communication skills.

Throughout the two -year course, students are assessed on their use of the following key skills: knowledge and understanding as well as analysis, application and evaluation. All of which are essential skills that students will use in all aspects of their life.

AS Psychology comprises of the study of 4 key Psychological approaches which underpin the majority of human behaviour. Within these approaches, twelve key psychological research studies and methods are examined in detail as well as issues and debates and key concepts within Psychology.

Topics taught at AS include:

- Biological psychology
- Social psychology
- Cognitive psychology
- Learning psychology

AS Psychology is examined in two papers of 1 hour 30 minutes' length. Papers 1 and 2 contribute 50% each of the total AS mark and 25% each of the total A level mark.

A level Psychology comprises of the study two core applications of Psychology to real life:

- Abnormal Psychology
- Health Psychology

Within each chosen applied area, students will be required to look at the core approaches studied in AS psychology: cognitive psychology, social psychology, physiological psychology and learning psychology. Candidates will also be required to apply the issues and debates from the AS Level component along with various methodological considerations.

A level Psychology is examined on two exam papers (paper 3 and paper 4). Paper 3 focuses on the theory behind the specialist options and paper 4 focuses on the application of the two specialist options. Each paper contributes 25% of the overall A level grade. The overall grade from papers 3 and 4 is then combined with the student's grade from AS (50%) to establish a final grade.

Mrs. Jennifer Rainford
Head of Humanities
jrainford@mescairo.com

SPANISH AS/A LEVEL

(Students must have a minimum grade B at IGCSE in this subject before starting this course)

The Edexcel AS/A Level in Spanish has been developed to inspire all students. This course of study will enable students to develop an advanced level knowledge and understanding of the Spanish language, the culture of Spain and other Spanish-speaking countries, as well as practical and valuable language and transferable study skills. This specification will help to prepare students for higher education and enhance their employability profile.

The aims and objectives of this qualification are to enable students to:

- Enhance their linguistic skills and promote and develop their capacity for critical thinking
- Develop control of the language system to convey meaning, using spoken and written skill
- Develop their ability to interact effectively with users of Spanish in speech and in writing
- Develop knowledge about matters central to the society and culture
- Equip themselves with transferable skills such as autonomy, resourcefulness, creativity

Standalone AS qualification (no longer counting towards the A level). A levels will now be fully linear, with students sitting their exams at the end of the two-year course.

Assessment AS

Paper	skills	Marks	Timing	Proportion
1	Listening Reading Translation (Spanish to English)	64	1 hour and 45 minutes	40%
2	Writing: 2 essays of 300 words each 1 essay on a book studied or 1 essay on a movie studied Translation (English to Spanish)	60	1 hour and 40 minutes	30%
3	Speaking 1 Stimulus card (5mins) 2 one chosen sub theme to talk about out of 2	72	27 to 30 minutes (15 minutes for preparation are included)	30%

Assessment A Level

Paper	skills	Marks	Timing	Proportion
1	Listening Reading Translation (Spanish to English)	80	2 hours	40%
2	Writing: 2 essays of 300 words each 1 essay on a book studied and 1 essay on a movie studied Translation (English to Spanish)	120	2 hours 40 minutes	30%

3	Speaking 1 Stimulus card (5mns) 2 Research project (2mins presentation and 10mns discussion)	72	21 and 23 minutes (5 minutes for preparation are included)	30%
---	--	----	---	-----

Oumar Thiam
Head of British World Languages
othiam@mescairo.com