



A LEVEL OPTION BOOKLET 2021 - 2023



A School with a Difference

Our present Year 11 will go to Year 12 in August 2021 to complete their AS Level exams in June 2022 and A Level in June 2023. Our present Year 12 will go to Year 13 in August 2021 to complete their A Level in June 2023. This is subject to students gaining the required entry grades.

In many ways, Years 12 and 13 of school are the most important in a student's life when they apply and prepare for university and their future career. At The Winchester School, we give students the confidence to face the future and set them off on the next stage of their lives.

We offer a broad range of strategies to support students moving from Year 11 to Year 12. A comprehensive tutorial system will be in place and the complete support of staff is offered at all times. We would like to invite you to share our success and enjoy the challenges of learning in a stimulating and safe environment. We know that our staff are exceptional and will do everything they can to ensure that students achieve and exceed their potential and we hope that in the future you will look back on your time with us with happy memories and as the first step towards a successful career.

We have our own Sixth Form Centre, Library, Steam Café, ICT facilities, 3D room, Food and Nutrition Laboratory, Science laboratories, BTEC Lab and playing fields. Sixth Form offers a wide range of community services and work experience opportunities including Oxford Reading Tree Programme, Enrichment Support to KS3, visits to Al-Noor Centre for special needs, visits to orphanages and old age home, Achievement Centre support and internship opportunities etc. Our Sixth Form provision fully compliment the school's vision of employability and adaptability. We are proud to be associated with organisations and events like SCIFEST and TEDx. Our participation in Debate Dubai, MUN, Makers day, STEAM Carnival, STEAM Fest, Think Science, Global Innovation Challenge, Duke of Edinburgh, Diplomathon, Dewa Innovation Challenge, STEM Olympiads, Robotics, and Water Rocket Challenge by Aviation College enhances innovation, entrepreneurship and enterprise skills in our students. We have extensive career counselling sessions available to help our students pick their right career paths.

The greatest advantage of doing A Levels at The Winchester School is the warm and friendly atmosphere and our multicultural staff and students. We offer a unique international learning experience for our students. Our educational programme is structured keeping in mind a 'World-centred' perspective based on the principles of GEMS core values: 'Leading through Innovation, Pursuing Excellence, Growing by Learning, and Global Citizenship.'

Options for AS / A Level 2021 – 2023

As you are aware, it is time for your child to choose subjects for the AS Level program. The choice of these subjects will be significant in determining the educational future of your child. The process of selection of the right subjects is very crucial and has far-reaching consequences.

In choosing their options, students must carefully consider the following points:

- What do I enjoy?
- What am I good at?
- What do I need for entry into College/University education?

Please do a thorough research of what you want to pursue in the universities, which courses and what do they need in the A level and make an informed choice for A level options.

Listed below are some career options, essential prerequisites and desirable prerequisites for these choices based on general information. It may vary for some universities and countries.

Degree course	Essential Subjects	Useful Subjects
Accountancy	Mathematics	Accounting, Business Studies and Economics
Actuarial Science/Studies	Mathematics	Further Mathematics, Economics, Business Studies
Aeronautical Engineering	Mathematics and Physics	Further Mathematics
Architecture	Art and Design	Mathematics and Physics.
Banking	Mathematics , Accounting	Business Studies and Economics
Biochemistry	Chemistry, Biology	Mathematics , Physics
Biology	Biology, Chemistry	Mathematics or Physics
Biomedical Sciences	Normally two from Biology, Chemistry, Mathematics and Physics. Chemistry is essential for some courses	Mathematics, Further Mathematics, Biology, Chemistry, Physics
Business Studies	None	Mathematics, Business Studies , Accounting and Economics
Chemical Engineering	Chemistry and Mathematics and sometimes Physics as well	Physics, Biology, Further Mathematics
Chemistry	Chemistry and occasionally Mathematics plus another science	Mathematics, Further Mathematics, Physics, Biology
Communication Studies	English or Media Studies.	Sociology, Psychology
Computing	Computer Science, Mathematics	Further Mathematics, Physics, IT
Dentistry	Chemistry and Biology for most courses, but some require Mathematics or Physics as well	Mathematics, Physics, Further Mathematics
Economics	Usually Mathematics	Economics
Electrical/Electronic Engineering	Mathematics, Physics	Further Mathematics, ICT and Design Technology
Engineering (General)	Mathematics and Physics	Further Mathematics and Chemistry
Environmental Science/Studies	Many courses will ask for two from Biology, Chemistry, Mathematics, Physics and Geography	

Degree course	Essential Subjects	Useful Subjects
Finance	Mathematics	Accounting, Business Studies and Economics
Geology	Usually two from Mathematics, Physics Chemistry and Biology	Geography, Geology
History	Most degrees require History	Economics, English Literature, Sociology,
Law	English	History, Sociology
Management Studies	Business Studies	Mathematics, Economics
Mathematics	Mathematics and sometimes Further Mathematics	Further Mathematics, Physics
Mechanical Engineering	Mathematics with a strong Mechanics component, Physics	Further Mathematics
Medical Science	Biology, Chemistry , Physics / Mathematics	Mathematics, Physics (For India , English is also required)
Medicine	Chemistry, Biology	Mathematics or Physics
Nursing	Biology	Sociology, Psychology, Chemistry.
Pharmacy	Chemistry, Biology and one from Mathematics and Physics	Mathematics, Physics
Physics	Mathematics, Physics	Further Mathematics, Chemistry
Physiotherapy	Biology	Chemistry, Mathematics, Physics, Psychology
Politics	None	History, Sociology
Psychology	Biology, Psychology	Mathematics, Sociology
Sociology	None	Sociology, Psychology, Geography
Speech Therapy	Biology	English Language , Psychology, Chemistry or Physics
Veterinary Science	Chemistry and Biology	Mathematics/Physics , Psychology

Students will continue with their option choices of AS level into A level. It is not possible for a student to choose a new option in A level.

It is expected that a student will score at least a passing grade in the AS Level examination to continue that subject at A Level. The final A level grade is a cumulative grade of the AS and A level exams.

It is always advisable for students to opt for four subjects as this gives a safer option for students to gain admission in Universities. Many universities insist on three A levels with specific minimum grade requirements. Certain universities give preference to students with four A levels.

Re-enrollment procedures need to be completed before the end of the academic year to confirm admission into A level.

I also wish to inform you that as per the specifications of the Ministry of Education and KHDA, a student can register for the qualifying examination only if he/she has a minimum of 96% attendance during the academic year.

Sixth Form Admission Procedure A Level Option Form 2021 – 2023

The standard entry requirement for A level study at The Winchester School, Jebel Ali is:

1. Ministry Arabic is compulsory for all Arabs. It is not an AS subject.
2. Arabic is compulsory for Arabs and Non- Arabs who wish to attend any UAE University (International/local) in the future.
3. Islamic Studies is compulsory for all Muslim students.
4. Please note that EMSAT examination is the ministry requirement for admission into local UAE University both National and International. Further details can be found on the individual university websites and can defer.
5. A student must achieve a minimum B grade in the IGCSE examination in all subjects that he/she wants to pursue further in AS/A level.
6. English and Mathematics are not compulsory.
7. Students can take only one subject in AS based on English IGCSE grade. Please note that for AS English, Psychology and Sociology, IGCSE First Language English is required, if they have not taken Sociology and Psychology as IGCSE subject.
8. IT and Computer science cannot be written in the same setting as per CAIE.
9. An option will be considered viable only if at least 10 students sign up for it.
10. BTEC is a 2-year programme. BTEC can be studied alone or in combination with A levels. One BTEC is equivalent to 2 A levels. Students can also choose either 2 BTEC Options or hybrid option: 1 BTEC and 2 AS options. BTEC is highly recognized in UK and does not require equivalency from UAE ministry of education for universities in UK. **Please check on acceptance of BTEC in the university you wish to pursue.**
11. Students must choose minimum 3 subjects, one from each option block.

Option 1	Option 2	Option 3	Option 4
Accounting (Grade A*-B in IGCSE) <input type="checkbox"/>	Economics (Grade A*-B in IGCSE) <input type="checkbox"/>	*Travel and Tourism (Grade A*-B in IGCSE TT or A*-B in English 1st or 2nd Lang) <input type="checkbox"/>	Business (Grade A*-B in IGCSE Business or A*-B in English 1st or 2nd Lang) <input type="checkbox"/>
Physics (Grade A*-B in IGCSE) <input type="checkbox"/>	Biology (Grade A*-B in IGCSE) <input type="checkbox"/>	Chemistry (Grade A*-B in IGCSE) <input type="checkbox"/>	Computer Science (Grade A*-B in IGCSE) <input type="checkbox"/>
Information Technology (Grade A*-B in IGCSE) <input type="checkbox"/>	Mathematics (Grade A*-B in IGCSE) <input type="checkbox"/>	*Psychology (Grade 9-5 in GCSE Psychology or A*-B in IGCSE English 1st Lang.) <input type="checkbox"/>	Mathematics (Grade A*-B in IGCSE) <input type="checkbox"/>
English Language (Grade A*-B in IGCSE English 1st Language) <input type="checkbox"/>	*Sociology (Grade A*-B in IGCSE Sociology or A*-B in English 1st Lang) <input type="checkbox"/>	Geography (Grade A*-B in IGCSE Geography) <input type="checkbox"/>	History (Grade A*-B in IGCSE History) <input type="checkbox"/>
Psychology (Grade A-B in IGCSE English 1st Lang.) <input type="checkbox"/>	Art and Design (Grade A*-B in IGCSE) <input type="checkbox"/>	Mathematics (Grade A*-B in IGCSE) <input type="checkbox"/>	Information Technology (Grade A*-B in IGCSE) <input type="checkbox"/>
BTEC ICT <input type="checkbox"/>	BTEC Business <input type="checkbox"/>	BTEC Hospitality <input type="checkbox"/>	BTEC Applied Sciences <input type="checkbox"/>

Sixth Form Entry Requirement For The Subjects Offered

Subject	IGCSE grade required for AS & A Level Course	Possibility of doing the subject in AS Level if not completed in IGCSE Yes or No	Other requirements
Accounting	B	NO	N/A
Biology	B	NO	N/A
Business	B	YES	IGCSE English with a minimum B grade if Business is not taken in IGCSE
Chemistry	B	NO	N/A
Economics	B	NO	N/A
English Language	B (in IGCSE First Language)	NO	N/A
Geography	B	NO	IGCSE EVM with a minimum B grade if Geography is not taken in IGCSE
Information Technology	B	NO	N/A
Computer Science	B	NO	N/A
Mathematics	B	NO	N/A
Physics	B	NO	N/A
Psychology	N/A	YES	Should have 'B' in English First Language if Psychology is not taken in IGCSE
Sociology	B	YES	Should have 'B' in English First Language if Sociology is not taken in IGCSE
Travel and Tourism	B	YES	IGCSE English with a minimum B grade if Travel & Tourism is not taken in IGCSE
Art and Design	B	NO	N/A
History	B	NO	N/A

***Please be informed that students who have done IGCSE Core paper in Mathematics, English, Physics, Chemistry and Biology are not eligible for entry into these subjects at AS Level.**

***Please note that students can take only ONE AS Subject based on IGCSE English.**

Choosing appropriate Academic Pathways

Sixth Form Study

Studying in the Sixth Form is very different from the experience students are used to in Years 7-11 and although Sixth Formers take a much smaller range of subjects, the depth of study required is much more than at IGCSE. It is important that students use their time wisely and productively to prepare to work hard and prepare themselves fully for their assessments and university admissions

In year 13, the Sixth Formers are given non-contact periods timetabled into their working week, which provide them with time to undertake independent study to meet the requirements of their courses. This encourages them to become independent, life-long learners and prepares them for further study at university.

Islamic Education is mandatory for all Muslim students in Year 12 and Year 13.

As per Ministry of Education requirement students registered under Arab passports or students who will continue to study in UAE Local universities are required to study Arabic in year 12 and year 13 for three lessons per week and complete the Ministry curriculum and subsequent internal assessments.

CURRICULUM

At Winchester, we follow Cambridge Assessment International Examination AS & A Levels and BTEC Nationals – Level 3 programme from the Pearson board. Look carefully at the syllabus and the books (even if you have studied the subject earlier).

Please refer to <https://www.cambridgeinternational.org> or

<https://qualifications.pearson.com/en/qualifications/btec-nationals.html> for BTEC.

Choosing the right subjects for future careers

- Research which subjects are required or of benefit for the career you wish to pursue.
Your Research in choosing the subject is vital as these requirements may vary from course to course, University to University and country to country.
Choose the subject that you will enjoy, stay motivated and the combination of which meets your future requirement. Some websites that might help you:
www.careerswales.com www.connexions-direct.com www.ucas.com
- Prioritise your subjects in order of interest and value to you

What to research

- What are the prospects or the kind of jobs that I can get?
- What will I have to do on a day to day basis?
- What kind of personal skills or qualities do I need?
- What does the job involve?
- What are the pros and cons of the type of work?
- What type of environment will I work in?
- What would be the working hours?
- How much can I earn?
- How long should I study?
- Is further training or studies or research available for me?
- Is training available while working?

- Will the job involve travelling?

Careers and Higher Education Guidance

At Winchester we start our Career guidance from Year 9 and is continued in KS4 and then into sixth form. All students in Year 12 have an individual career guidance session with the Careers Counsellor, Dr. Ashmi Prasad, to support their Career aspirations and choice of their universities, keeping in mind the courses and would most likely pursue along with the choice of country they wish to go .

We have regular Career education fair and Career assemblies organised for our students. Guests from visiting universities give presentations on aspects of university life and the application process.

We organise career orientations for parents to understand the process of University applications including understanding UCAS (UK), Common App (US), Study portal (Netherlands), Personal Statements, Applying to Canada , European Universities etc.

Our Career counsellor works very closely with students to complete their application process from Year 12. All students are provided with Unifrog details. Unifrog user-friendly platform that helps students to make the best choices, and submit the strongest applications. It also teachers and counsellors to monitor the progression process of university applications effectively.

ART & DESIGN

Head of Department
Mr. Angelo Dias

Exam Board
Cambridge

Subject Code
9479

Content Overview

Cambridge International AS & A Level Art & Design encourages learners to explore a range of processes and techniques appropriate to their chosen area of study. The syllabus encourages personal responses that are based on knowledge and understanding and skills in art, craft and design. The four areas of study are listed below:

Fine art

Candidates may focus on one or combine several of the following:

- painting
- drawing
- sculpture
- print making
- mixed media
- experimental – assemblage/construction.

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Component 1 - Coursework 100 marks	50% of the AS Level 25% of the A Level	Candidates research, develop and realise a project from one area of study in the syllabus content. There are two parts to the coursework: – a portfolio and – a final outcome.
Component 2 - Externally Set Assignment 15 hours - 100 marks	50% of the AS Level 25% of the A Level	Candidates choose one starting point to develop into a personal response. There are two parts to the assignment: – supporting studies, created during the preparation period and – a final outcome, produced during a supervised test of 15 hours' total duration.
Component 3 - Personal Investigation 100 marks	50% of the A Level	Candidates investigate a theme, idea, concept or process that is personal to them. There are two parts to the investigation: – practical work and – written analysis (1000–1500 words). The practical work and written analysis must form an integrated submission.

Future Prospects:

A qualification in Art & Design A-Level can be used in many career paths, some of which you may not have considered; Architect, Art Historian, Publisher, Gallery Manager, Writer/critic, Game Designer, Stop Motion Animator, Interface Designer, Advertiser, Web Designer, Furniture Designer, Graphic Designer, Illustrator, Interior Designer, Printmaker, Product Designer, Fashion Designer, Video/film/photographer, Sculptor, Teacher, Lecturer and many more besides.

BIOLOGY

Head of Department
Mr. Nisar Vadakkekayil

Exam Board
Cambridge

Subject Code
9700

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12

Candidates for Cambridge International AS Level Biology study the following topics:

1. Cell structure
2. Biological molecules
3. Enzymes
4. Cell membranes and transport
5. The mitotic cell cycle
6. Nucleic acids and protein synthesis
7. Transport in plants
8. Transport in mammals
9. Gas exchange and smoking
10. Infectious disease
11. Immunity

For Year 13

Candidates for Cambridge International A Level Biology study the AS topics and the following topics:

1. Energy and respiration
2. Photosynthesis
3. Homeostasis
4. Control and co-ordination
5. Inherited change
6. Selection and evolution
7. Biodiversity, classification and conservation
8. Genetic technology

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1 – Multiple choice 40 marks - 1 hour	31% of the AS Level 15.5% of the A Level	This paper consists of 40 multiple choice questions, all with four options. All questions will be based on the AS Level syllabus content.
Paper 2 - Structured questions 60 marks 1 hour 15 minutes	46% of the AS Level 23% of the A Level	This paper consists of a variable number of questions, of variable mark value. All questions will be based on the AS Level syllabus content.
Paper 3 - Advanced Practical skills - 40 marks 2 hours	23% of the AS Level 11.5% of the A Level	This paper requires candidates to carry out practical work in timed conditions. This paper will consist of two or three experiments drawn from different areas of the AS Level syllabus.
Exam Papers 13	% of GCE	Details
Paper 4 – Structured questions - 100 marks 2 hours	38.5% of the A Level	This paper consists of a variable number of structured questions each with a variable mark value (Section A) and a choice of one free response style question worth 15 marks (Section B). All questions will be based on the A Level syllabus but may require knowledge of material first encountered in the AS Level syllabus.
Paper 5 - Planning , analysis and Evaluation – 30 marks - 1 hour 15 minutes	11.5% of the A Level	This paper consists of a variable number of questions of variable mark value based on the practical skills of planning, analysis and evaluation.

Future Prospects:

Students who take Biology often also study from a wide range of subjects, including Psychology, Sociology, PE, Chemistry, Science in Society, Physics, Applied Science, Health & Social Care, Critical Thinking and Environmental Studies.

Biology is a great choice of subject for people who want a career in health and clinical professions such as Medicine, Dentistry, Veterinary Science, Physiotherapy, Pharmacy, Optometry, Nursing, Zoology, Marine Biology or Forensic Science.

CHEMISTRY

Head of Department
Mr. Nisar Vadakkekayil

Exam Board
Cambridge

Subject Code
9701

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12

Students will study the following topics in AS level:

- Unit 1: Atoms, molecules and stoichiometry
- Unit 2: Atomic structure
- Unit 3: Chemical bonding
- Unit 4: States of matter
- Unit 5: Chemical energetics
- Unit 6: Electrochemistry
- Unit 7: Equilibria
- Unit 8: Reaction kinetics
- Unit 9: The Periodic Table: chemical periodicity
- Unit 10: Group 2
- Unit 11: Group 17
- Unit 12: An introduction to the chemistry of transition elements
- Unit 13: Nitrogen and sulfur
- Unit 14: An introduction to organic chemistry
- Unit 15: Hydrocarbons
- Unit 16: Halogen derivatives
- Unit 17: Hydroxy compounds
- Unit 18: Carbonyl compounds

For Year 13

Students will study the following topics in A level:

- Unit 19: Lattice Energy
- Unit 20: Electrochemistry
- UNIT 21: Further aspects of equilibria
- Unit 21: Further aspects of equilibria
- Unit 22: Reaction Kinetics
- Unit 23: Entropy and Gibbs free energy
- Unit 24: Transition elements
- Unit 25: Benzene and its compounds
- Unit 26: Carboxylic acids and their derivatives
- Unit 27: Nitrogen compounds
- Unit 28: Polymerisation
- Unit 29: Analytical Technique
- Unit 30: Organic synthesis
- Unit 31: An introduction to the chemistry of transition elements

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1 – Multiple choice 40 marks - 1 hour	31% of the AS Level 15.5% of the A Level	This paper consists of 40 multiple choice questions, all with four options. All questions will be based on the AS Level syllabus content.
Paper 2 - Structured questions 60 marks 1 hour 15 minutes	46% of the AS Level 23% of the A Level	This paper consists of a variable number of questions of variable mark value. All questions will be based on the AS Level syllabus content.
Paper 3 - Advanced Practical skills - 40 marks 2 hours	23% of the AS Level 11.5% of the A Level	This paper requires candidates to carry out practical work in timed conditions. Candidates will be expected to collect, record and analyse data so that they can answer questions related to the activity. The paper will consist of two or three experiments drawn from different areas of chemistry.
Exam Papers 13	% of GCE	Details
Paper 4 – Structured questions - 100 marks 2 hours	38.5% of the A Level	This paper consists of a variable number of free response style questions of variable mark value. All questions will be based on the A Level syllabus but may require knowledge of material first encountered in the AS Level syllabus.
Paper 5 - Planning , analysis and Evaluation – 30 marks - 1 hour 15 minutes	11.5% of the A Level	This paper consists of a variable number of questions of variable mark value based on the practical skills of planning, analysis and evaluation. The context of the questions may be outside the syllabus content, but candidates will be assessed on their practical skills of planning, analysis and evaluation rather than their knowledge of theory.

Future Prospects:

Chemistry is a great choice of subject for people who want a career in health and clinical professions, such as Medicine, Nursing, Biochemistry, Dentistry or Forensic Science. However, it also leads you into a wide range of research or clinical careers, such as Pharmacology, Biochemistry or Biochemical engineering.

Chemistry degrees open many doors in regards to job opportunities. Some of these include: Analytical Chemist, Biotechnologist, Chemical Engineer, Healthcare Scientist, Clinical Biochemistry, Forensic Scientist, Nanotechnologist, Pharmacologist, Research Scientist (physical sciences), Scientific Laboratory Technician, Toxicologist.

PHYSICS

Head of Department
Mrs Mr. Nisar Vadakkekayil

Exam Board
Cambridge

Subject Code
9702

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Cambridge International AS and A Level Physics, candidates may choose to take :

- Papers 1, 2, 3, 4 and 5 in the same examination series, leading to the full Cambridge International A Level
- Papers 1,2 and 3 (for the AS Level qualification) in one series, then Papers 4 and 5 (for the full Cambridge International A Level) in a later series

Content section	Assessment component	Topics included
AS Level	Section 1 Theory Fundamentals & Practical Skills	Unit 1: Physical quantities and units Unit 2: Measurement techniques Unit 3: Kinematics Unit 4: Dynamics Unit 5: Forces, density and pressure Unit 6: Work, energy and power Unit 7: Deformation of solids Unit 8: Waves Unit 9: Superposition Unit 10: Electric fields Unit 11: Current of electricity Unit 12: D.C. circuits Unit 13: Particle and nuclear physics

For Year 13

Content section	Assessment component	Topics included
A	Section 2 Advanced Theory & Advanced Practical Skills	Unit 1: Physical quantities and units Unit 2: Measurement techniques Unit 3: Motion in a circle Unit 4: Gravitational fields Unit 5: Ideal gases Unit 6: Temperature Unit 7: Thermal properties of materials Unit 8: Oscillations Unit 9: Waves Unit 10: Communication Unit 11: Electric fields Unit 12: Capacitance Unit 13: Current of electricity Unit 14: D.C. circuits Unit 15: Electronics Unit 16: Magnetic fields Unit 17: Electromagnetic induction Unit 18: Alternating currents Unit 19: Quantum physics Unit 20: Particle and nuclear physics

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1 – Multiple choice 40 marks - 1 hour	31% of the AS Level 15.5% of the A Level	This paper consists of 40 multiple choice questions, all with four options. All questions will be based on the AS Level syllabus content.
Paper 2 - Structured questions 60 marks 1 hour 15 minutes	46% of the AS Level 23% of the A Level	This paper consists of a variable number of questions of variable mark value. All questions will be based on the AS Level syllabus content.
Paper 3 - Advanced Practical skills - 40 marks 2 hours	23% of the AS Level 11.5% of the A Level	This paper requires candidates to carry out practical work in timed conditions. The paper will consist of two experiments drawn from different areas of physics. The experiments may be based on physics not included in the syllabus content, but candidates will be assessed on their practical skills rather than their knowledge of theory.
Exam Papers 13	% of GCE	Details
Paper 4 – Structured questions - 100 marks 2 hours	38.5% of the A Level	This paper consists of a variable number of questions of variable mark value. All questions will be based on the A Level syllabus but may require knowledge of material first encountered in the AS Level syllabus.
Paper 5 - Planning , analysis and Evaluation – 30 marks - 1 hour 15 minutes	11.5% of the A Level	This paper consists of two questions of equal mark value based on the practical skills of planning, analysis and evaluation. The context of the questions may be outside the syllabus content, but candidates will be assessed on their practical skills of planning, analysis and evaluation rather than their knowledge of theory.

Future Prospects:

Physics is a requirement for many university courses including the various branches of Engineering and Physics. It is also recommended for some Architecture, Science and Medical courses. To study one of the many Physics or Engineering based courses at degree level you will require both Physics and Mathematics A Levels. There is no escaping the fact that these two subjects are inextricably linked. Although it is not necessary to study Mathematics to take A Level Physics, it is necessary to have a sound grasp of algebra and trigonometry for the AS level and basic calculus and exponential/logarithmic functions for A Level; therefore A level Mathematics is highly recommended.

MATHEMATICS

Head of Department
Mrs. Mita Singh

Exam Board
Cambridge

Subject Code
9709

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12:

The Cambridge International AS Level Mathematics qualification offers two different options:

- Pure Mathematics and Mechanics (Paper 1 and Paper 4) or
- Pure Mathematics and Probability & Statistics (Paper 1 and Paper 5).

Content section	Assessment component	Topics included
Pure Mathematics 1	Paper 1	1.1 Quadratics 1.2 Functions 1.3 Coordinate geometry 1.4 Circular measure 1.5 Trigonometry 1.6 Series 1.7 Differentiation 1.8 Integration
Mechanics 1	Paper 4	4.1 Forces and equilibrium 4.2 Kinematics of motion in a straight line 4.3 Momentum 4.4 Newton's laws of motion 4.5 Energy, work and power
Statistics 1	Paper 5	5.1 Representation of data 5.2 Permutations and combinations 5.3 Probability 5.4 Discrete random variables 5.5 The normal distribution

For Year 13:

The Cambridge International A Level Mathematics qualification offers two different options:

- Pure Mathematics, Mechanics and Probability & Statistics (Papers 1, 3, 4 and 5) or
- Pure Mathematics and Probability & Statistics (Papers 1, 3, 5 and 6).

Content section	Assessment component	Topics included
Pure Mathematics 2	Paper 3	2.1 Algebra 2.2 Logarithmic and exponential functions 2.3 Trigonometry 2.4 Differentiation 2.5 Integration 2.6 Numerical solution of equations

Pure Mathematics 3	Paper 3	3.1 Algebra 3.2 Logarithmic and exponential functions 3.3 Trigonometry 3.4 Differentiation 3.5 Integration 3.6 Numerical solution of equations 3.7 Vectors 3.8 Differential equations 3.9 Complex numbers
Statistics 2	Paper 6	6.1 The Poisson distribution 6.2 Linear combinations of random variables 6.3 Continuous random variables 6.4 Sampling and estimation 6.5 Hypothesis tests

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1 - 75 marks 1 hour 50 minutes	60% of the AS Level 30% of the A Level	10 to 12 structured questions based on the Pure Mathematics 1 subject content
Paper 4 - 50 marks 1 hour 15 minutes	40% of the AS Level 20% of the A Level	6 to 8 structured questions based on the Mechanics subject content
Paper 5 - 50 marks 1 hour 15 minutes	40% of the AS Level 20% of the A Level	6 to 8 structured questions based on the Probability & Statistics 1 subject content
Exam Papers 13	% of GCE	Details
Paper 3 - 75 marks 1 hour 50 minutes	30% of the A Level	9 to 11 structured questions based on the Pure Mathematics 3 subject content
Paper 6 - 50 marks 1 hour 15 minutes	20% of the A Level	6 to 8 structured questions based on the Probability & Statistics 2 subject content

Future Prospects:

An AS in Mathematics is very valuable as a supporting subject to many courses at A Level and degree level, especially in the sciences and geography, psychology, sociology and medical courses. A Level Mathematics is a qualification for entry to a wide variety of courses in higher education. There are also many areas of employment that see a Mathematics A Level as an important qualification and it is often a requirement for the vocational qualifications related to these areas. Higher Education courses or careers for which A Level Mathematics is particularly relevant include economics, medicine, architecture, engineering, accountancy, teaching, business, banking, air traffic control, retail management, surveying, cartography, psychology, physics, computing and ICT.

ENGLISH

Head of Department
Ms. Esther Narjinari

Exam Board
Cambridge

Subject Code
9093

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at the end of Year 13.

Course Details

For Year 12

Content section	Topics included
Paper 1 9093/12	This paper contains two main parts: (a) Commentary on the use of language in the passage(s). (b) Directed writing task based on the passage(s) Texts will be drawn from a range of English language sources such as advertisements, brochures, leaflets, editorials, news stories, articles, reviews, blogs, investigative journalism, letters, podcasts, (auto) biographies, diaries, essays, scripted speech (e.g. a speech by a politician) and narrative/descriptive writing.
Paper 2 9093/22	This paper contains two main parts: (a) Imaginative writing (b) Writing for an audience

For Year 13

Content section	Topics included
Paper 3 9093/32	Text analysis
Paper 4 9093/42	Language topics (a) Spoken language and social groups (b) English as a global language (c) Language acquisition by children and teenagers.

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1- Passages - 50 marks 2 hours 15 minutes	50% of the AS Level 25% of the A Level	The paper contains three questions. Candidates answer two questions: Question 1, and either Question 2 or Question 3. Questions carry equal marks
Paper 2 – Writing - 50 marks 2 hours	50% of the AS Level 25% of the A Level	Two sections: Section A and Section B. Candidates answer two questions: one from Section A and one from Section B. Questions carry equal marks.
Exam Papers 13	% of GCE	Details
Paper 3- Text Analysis - 50 marks 2 hours 15 minutes	25% of the A Level	The paper contains two questions. Candidates must answer both questions. Questions carry equal marks.
Paper 2 – Language Topics - 50 marks 2 hours 15 minutes	25% of the A Level	The paper contains three questions, each on a separate topic area. Candidates answer two questions. Questions carry equal marks.
Exam Papers 12	% of GCE	Details
Paper 1- Passages - 50 marks 2 hours 15 minutes	50% of the AS Level 25% of the A Level	The paper contains three questions. Candidates answer two questions: Question 1, and either Question 2 or Question 3. Questions carry equal marks
Paper 2 – Writing - 50 marks 2 hours	50% of the AS Level 25% of the A Level	Two sections: Section A and Section B. Candidates answer two questions: one from Section A and one from Section B. Questions carry equal marks.
Exam Papers 13	% of GCE	Details
Paper 3- Text Analysis - 50 marks 2 hours 15 minutes	25% of the A Level	The paper contains two questions. Candidates must answer both questions. Questions carry equal marks.
Paper 2 – Language Topics - 50 marks 2 hours 15 minutes	25% of the A Level	The paper contains three questions, each on a separate topic area. Candidates answer two questions. Questions carry equal marks.

Future Prospects:

The analytical and communication abilities that an English degree provides are called ‘transferable skills’: they are useful in almost any occupation. When you are looking for a job, they are often the most valuable skills to have.

Because of this flexibility, English graduates find careers in a wide range of fields like publishing, teaching, advertising, law, journalism, mass media or charitable organizations.

ACCOUNTING

Head of Department
Mrs. Lincy Shibu

Exam Board
Cambridge

Subject Code
9706

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at the end of Year 13.

Course Details

For Year 12:

Candidates for Cambridge International AS Level should study the AS Level content for Paper 1 and Paper 2. The syllabus content is divided into two main topic areas:

1. Financial Accounting
2. Cost Accounting.

Content section	Assessment component	Topics included
Financial Accounting Cost Accounting	Paper 1	1.1 The accounting cycle 1.2 Accounting for non-current assets 1.3 Reconciliation and verification 1.4 Preparation of financial statements 1.4.1 Adjustments to financial statements 1.4.2 Sole traders 1.4.3 Partnerships 1.4.4 Limited companies 1.5 Analysis and communication of accounting information to stakeholders 2.1 Costing for materials and labour 2.2 Traditional costing methods 2.2.1 Absorption costing 2.2.2 Marginal costing 2.2.3 Cost–volume–profit analysis 2.3 The application of accounting to business planning
Financial Accounting Cost Accounting	Paper 2	1.1 The accounting cycle 1.2 Accounting for non-current assets 1.3 Reconciliation and verification 1.4 Preparation of financial statements 1.4.1 Adjustments to financial statements 1.4.2 Sole traders 1.4.3 Partnerships 1.4.4 Limited companies 1.5 Analysis and communication of accounting information to stakeholders 2.1 Costing for materials and labour 2.3 Traditional costing methods 2.3.1 Absorption costing 2.3.2 Marginal costing 2.3.3 Cost–volume–profit analysis 2.3 The application of accounting to business planning

For Year 13:

Candidates for Cambridge International A Level should study all the syllabus content.

The syllabus content is divided into two main topic areas:

1. Financial Accounting
2. Cost and Management Accounting.

Content section	Assessment component	Topics included
Financial Accounting Cost and Management Accounting	Paper 3	1.1 Preparation of financial statements 1.1.1 Manufacturing businesses 1.1.2 Not for profit organisations 1.1.3 Limited companies 1.1.4 International Accounting Standards 1.1.5 Auditing and stewardship of limited companies 1.2 Business purchase and merger 1.3 Consignment and Joint venture accounts 1.4 Computerised accounting systems 1.5 Analysis and communication of accounting information 2.1 Activity based costing (ABC) 2.2 Budgeting and budgetary control 2.3 Standard costing 2.4 Investment appraisal

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1 - 30 marks 1 hour	30% of the AS Level 15 % of the A Level	30 multiple choice questions based on the AS Level syllabus content
Paper 2 - 90 marks 1 hour 30 minutes	70% of the AS Level 35% of the A Level	Four structured questions on the AS Level syllabus content Question 1 on financial accounting (30 marks) Questions 2 and 3 on financial accounting (2 × 15 marks) Question 4 on cost and management accounting (30 marks)
Exam Papers 13	% of GCE	Details
Paper 3 - 150 marks 3 hours	50% of the A Level	Paper 3 tests the additional content for the A Level, but also requires a knowledge and understanding of the AS Level content. Section A: Four structured questions on financial accounting (4 × 25 marks) Section B: Two structured questions on cost and management accounting (2 × 25 marks)

Future Prospects:

The field of accounting is challenging and exciting. It is the field where one becomes familiar with the very finer points of business. Here are some of the jobs accounting degree would be useful for: Actuary, Business development manager, Data analyst, Economist, Licensed conveyancer, Management consultant, Mortgage adviser, Purchasing manager
Retail banker, Tax adviser.

BUSINESS STUDIES

Head of Department
Mrs. Lincy Shibu

Exam Board
Cambridge

Subject Code
9609

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at the end of Year 13.

Course Details

For Cambridge International AS and A Level Business, candidates:

- take Papers 1 and 2 only (for the Cambridge International AS Level qualification)
- follow a staged assessment route by taking Papers 1 and 2 (for Cambridge International AS Level qualification) in one series, then Paper 3 (for the Cambridge International A Level qualification) in a later series
- take Papers 1, 2 and 3 in the same examination series, leading to the full Cambridge International A Level.

For Year 12

Unit Name	Topics Included
Business and its environment	<ul style="list-style-type: none"> • Enterprise • Business structure • Size of business • Business objectives • Stakeholders in a business
People in organizations	<ul style="list-style-type: none"> • Management and leadership • Motivation • Human resource management
Marketing	<ul style="list-style-type: none"> • What is marketing? • Market research • The marketing mix
Operations and project management	<ul style="list-style-type: none"> • The nature of operations • Operations planning • Inventory management
Finance and accounting	<ul style="list-style-type: none"> • The need for business finance • Sources of finance • Costs • Accounting Fundamentals • Forecasting cash flows and managing • Working capital

For Year 13

Unit Name	Topics Included
Business and its environment	<ul style="list-style-type: none"> • Business structure • Size of business • External influences on business activity • External economic influences on business behaviour
People in organisations	<ul style="list-style-type: none"> • Human resource management • Organisational structure • Business communication
Marketing	<ul style="list-style-type: none"> • Marketing planning • Globalisation and international marketing
Operations and project management	<ul style="list-style-type: none"> • Capacity utilization • Lean production and quality management • Project management
Finance and accounting	<ul style="list-style-type: none"> • Costs • Budgets • Contents of Published Accounts • Analysis of Published Accounts • Investment Appraisal
Strategic Management	<ul style="list-style-type: none"> • What is strategic management? • Strategic analysis • Strategic choice • Strategic implementation

Examination

How will I be assessed?

Assessment Component	Weighting	
	AS Level	A Level
Paper 1 Short answer and essay 1 hour 15 minutes 40 marks Section A: Four short answer questions (20 marks) Section B: One essay from a choice of three questions (20 marks) Based on the AS Level syllabus content	20%	10%
Paper 2 Data response 1 hour 30 minutes 60 marks Two data response questions based on AS Level syllabus content	60%	30%
Paper 3 Case study 3 hours 100 marks Five questions and one essay (from a choice of two) based on a case study Based on the additional A Level syllabus content and also assumes knowledge and understanding of the AS Level syllabus content	-	50%

Future Prospects:

Many students use their Business Studies AS or A-Level to go directly into employment in a related field of work. When combined with Economics, Mathematics, Information Communication Technology, Sociology or English it makes a strong combination for a number of related degrees in many fields of Management, Finance, Law and Economics.

ECONOMICS

Head of Department
Mrs. Lincy Shibu

Exam Board
Cambridge

Subject Code
9708

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at the end of Year 13.

Course Details

For Year 12:

The Cambridge International AS Level Economics qualification offers two different Papers:

- Paper 1 Multiple Choice and Paper 2 Data Response and Essay

For Year 12

Unit Name	AS Level (Year 12) - Topics Included
1 Basic economic ideas and resource allocation	a) Scarcity, choice and opportunity cost b) Positive and normative statements c) Factors of production d) Resource allocation in different economic systems and issues of transition e) Production possibility curves f) Money g) Classification of goods and services
2 The price system and the micro economy	a) Demand and supply curves b) Price elasticity, income elasticity and cross-elasticities of demand c) Price elasticity of supply d) Interaction of demand and supply e) Market equilibrium and disequilibrium f) Consumer and producer surplus • meaning and significance
3 Government microeconomic intervention	a) Maximum and minimum prices b) Taxes (direct and indirect) c) Subsidies d) Transfer payments e) Direct provision of goods and services f) Nationalisation and privatisation
4 The macro economy	a) Aggregate Demand (AD) and Aggregate Supply b) Inflation c) Balance of payments d) Exchange rates e) The terms of trade f) Principles of absolute and comparative advantage g) Protectionism
5 Government macroeconomic intervention	a) Types of policy: fiscal policy, monetary policy, and supply-side policy b) Policies to correct balance of payments disequilibrium c) Policies to correct inflation and deflation • assessment of the effectiveness of fiscal, monetary and supply-side policies to correct inflation and deflation

For Year 13

The Cambridge International A Level Mathematics qualification offers two different Papers:
Paper 3 Multiple Choice and Paper 4 Data Response and Essay

Unit Name	A Level (Year 13) - Topics Included
1 Basic Economic Ideas and resource Allocation	<ul style="list-style-type: none"> a) Efficient resource allocation b) Externalities and market failure c) Social costs and benefits; cost-benefit analysis
2 The price system and the micro-economy	<ul style="list-style-type: none"> a) Law of diminishing the marginal utility b) Indifference curves and budget lines c) Types of cost, revenue and profit, short-run and long-run production d) Different market structures e) Growth and survival of firms f) Differing objectives of a firm
3 Government microeconomic intervention	<ul style="list-style-type: none"> a) Policies to achieve efficient resource allocation b) Equity and policies towards income and wealth redistribution c) Labour market forces and government intervention: d) Government failure in microeconomic intervention
4 The Macro Economy	<ul style="list-style-type: none"> a) Economic growth, economic development, and sustainability b) National Income statistics c) Classification of countries e) The circular flow of income f) Money supply (theory) g) Keynesian and Monetarist schools h) The demand for money and interest rate determination i) Policies towards developing economies; policies of trade and aid
5 Government macroeconomic intervention	<ul style="list-style-type: none"> a) Government macro policy aims b) Inter-connectedness of problems c) Effectiveness of policy options to meet all

Examination

How will I be assessed?

Exam Papers 12	% of GCE	Details
Paper 1 Multiple Choice 1 hour - 30 marks	40%	30 multiple choice questions based on the AS Level syllabus content
Paper 2 Data Response and Essay 1 hour 30 minutes - 40 marks	30% 30%	Time: Section A: one data response question (20 marks) Section B: one structured essay from a choice of three (20 marks) Based on the AS Level syllabus content
Exam Papers 13	% of GCE	Details
Paper 3 Multiple Choice 1 hour 15 minutes - 30 marks	15%	30 multiple choice questions based on the A Level syllabus content
Paper 4 Data Response and Essays 2 hours 15 minutes - 70 marks	10% 25%	Section A: one data response question (20 marks) Section B: two essays from a choice of six (50 marks) Based on the A Level syllabus content

Future Prospects:

Studying Economics will help you develop transferable skills that will prepare you for studying at university or moving into the world of work. These include skills in data interpretation and essay writing. Suitable higher education courses include Economics degrees or degrees in Applied Economics such as Environmental Economics, Labour Economics, Public Sector Economics or Monetary Economics. You might choose to study Business Economics, Econometrics or a Business and Management degree. Economics students can follow a wide range of careers in industry, commerce, finance and the civil service.

TRAVEL & TOURISM

Head of Department
Mrs. Lincy Shibu

Exam Board
Cambridge

Subject Code
9395

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12

- Papers 1 and 2 only leading to the Cambridge International AS Level qualification or
- Follow a staged assessment route by taking Papers 1 and 2 (for the Cambridge International AS Level qualification) in one examination series, then Papers 3 and 4 (for the Cambridge International A Level qualification) in a later examination series

Content section	Assessment component	Topics included
The industry 1.1 Principles of customer service in travel and tourism 1.2	Paper 1	1.1.1 The nature of travel and tourism 1.1.2 The scale of the travel and tourism industry 1.1.3 Factors affecting tourism and their impact 1.1.4 The structure of the travel and tourism industry 1.1.5 Subsectors of the travel and tourism industry 1.2.1 Customers and their needs 1.2.2 Impacts of quality customer service 1.2.3 Assessing the quality of customer service in travel and tourism organizations
Coursework 4.1	Paper 2	4.1 Introduction to Paper 2 Planning and managing a travel and tourism event 4.2 Framework and content 4.3 The coursework proposal form 4.4 Assessment criteria for coursework 4.5 Moderation of coursework

For Year 13

- Papers 3 and 4 (for the Cambridge International A Level qualification) in a later examination series
- Papers 1, 2, 3 and 4 in the same examination series, leading to the full Cambridge International A Level.

Content section	Assessment component	Topics included
Destination marketing	Paper 3	3.1 Defining the tourism market 3.2 Building a destination brand 3.3 Implementing the destination brand 3.4 Monitoring the effectiveness of the destination brand
Destination management	Paper 4	4.1 Organisations involved in destination management, their roles and priorities 4.2 Destination management 4.3 Impacts of tourism development

Examination

How will I be assessed?

Assessment Component	Weighting	
	AS Level	A Level
<p>Paper 1 The industry 2 hours 30 minutes Four questions, each worth 25 marks. Each question is subdivided into four sub questions and may be based on stimulus material. 100 marks</p>	67%	33%
<p>Paper 2 Planning and managing a travel and tourism event This is a coursework project which involves planning and managing a travel and tourism event. Candidates work in a team but present their project individually. Internally assessed, externally moderated. 50 marks</p>	33%	17%
<p>Paper 3 Destination marketing 1 hour 30 minutes Two questions, each worth 25 marks. Each of these questions is based on stimulus material and is subdivided into three sub questions. 50 marks</p>	-	25%
<p>Paper 4 Destination management 1 hour 30 minutes Two questions, each worth 25 marks. Each of these questions is based on stimulus material and is subdivided into three sub questions. 50 marks</p>	-	25%

Future Prospects:

Having completed AS Level Travel and Tourism, students could choose a variety of career opportunities in the following positions

- Tour Managers
- Travel Agency Managers
- Customer Service Managers
- Event organiser
- Hospitality Management
- Marketing Executive

HISTORY

Head of Department
Mrs. Prabha Sinha

Exam Board
Cambridge

Subject Code
9489

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12

	<u>Paper 1</u>	<u>Paper 2</u>
European option: Modern Europe, 1750–1921	<ul style="list-style-type: none"> • Liberalism and nationalism in Germany, 1815–71 	<ul style="list-style-type: none"> • France, 1774–1814 • The Industrial Revolution in Britain, 1750–1850 • The Russian Revolution, 1894–1921
American option: The History of the USA, 1820–1941	<ul style="list-style-type: none"> • The origins of the Civil War, 1820–61 	<ul style="list-style-type: none"> • Civil War and Reconstruction, 1861–77 • The Gilded Age and Progressive Era, 1870s to 1920 • The Great Crash, the Great Depression and the • New Deal policies, 1920–41
International option: International history, 1870–1945	<ul style="list-style-type: none"> • The League of Nations and international relations in the 1930s 	<ul style="list-style-type: none"> • Empire and the emergence of world powers, 1870–1919 • The League of Nations and international relations in the 1920s • China and Japan, 1912–45

For Year 13

Paper 3

- Topic 1: The origins of the First World War
- Topic 2: The Holocaust
- Topic 3: The origins and development of the Cold War

Paper 4

- European option, Depth study 1: European history in the interwar years, 1919–41
 - Theme 1: Mussolini's Italy, 1919–41
 - Theme 2: Stalin's Russia, 1924–41
 - Theme 3: Hitler's Germany, 1929–41
 - Theme 4: Britain, 1919–39

- American option, Depth study 2: The USA, 1944–92
 - Theme 1: The late 1940s and 1950s
 - Theme 2: The 1960s and the 1970s
 - Theme 3: The 1980s and early 1990s
 - Theme 4: Foreign policy, 1944–92

- International option, Depth study 3: International history, 1945–92
 - Theme 1: US–Soviet relations during the Cold War, 1950–91
 - Theme 2: The spread of communism in East and Southeast Asia, 1945–91
 - Theme 3: Decolonisation, the Cold War and the UN in Sub-Saharan Africa, 1950–92
 - Theme 4: Conflict in the Middle East, 1948–91

Examination

How will I be assessed?

Exam Papers - Year 12	% of GCE	Details
Paper 1 – 40 marks 1 hour 15 minutes	40% of the AS Level 20% of the A Level	Candidates answer one two-part document question on one of the options given. Candidates must answer both parts of the question they choose.
Paper 2 – 60 marks 1 hour 45 minutes	60% of the AS Level 30% of the A Level	Candidates answer two two-part questions from three on one of the options given. Candidates must answer both parts of the questions they choose.
Exam Papers - Year 13	% of GCE	Details
Paper 3 Interpretations question 40 marks 1 hour 15 minutes	20% of total marks	Candidates answer one interpretation question on one of the options given in the syllabus
Paper 4 Depth study – 60 marks 1 hour 45 minutes	30% of total marks	Candidates answer two questions on their chosen depth study

Future Prospects:

The skills you will obtain through studying History will be useful in a number of careers and higher education options, either directly related to History (e.g. working in museums, galleries, heritage sites, record offices and archives and teaching), or in areas such as Journalism, Law, Libraries, National and Local Government, the Civil Service and business management.

GEOGRAPHY

Head of Department
Mrs. Prabha Sinha

Exam Board
Cambridge

Subject Code
9479

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12

The Cambridge International AS Level Geography qualification consist of two papers (Paper 1 and Paper 2).

Content section	Assessment component	Topics included
Core Physical Geography	Paper 1	1.Hydrology and fluvial geomorphology 2.Atmosphere and weather 3.Rocks and weathering
Core Human Geography	Paper 2	1.Population 2.Migration 3.Settlement dynamics

For

Year 13

The Cambridge International A Level Geography qualification consist of two papers Paper 3 and Paper 4.

Content section	Assessment component	Topics included
Advanced Physical Geography Options	Paper 3	1.Tropical environments 2.Coastal environments 3.Hazardous environments 4.Hot arid and semi-arid environments
Advanced Human Geography Options	Paper 4	1.Production, location and change 2.Environmental management 3.Global interdependence 4.Economic transition

Examination

How will I be assessed?

Exam Papers – Year 12	% of GCE	Details
Paper 1 - 60 marks 1 hour 30 minutes	50% of the AS Level 25% of the A Level	Core Physical Geography Section A: Three data response questions (30 marks) Section B: One structured question from a choice of three (30 marks)
Paper 2 - 60 marks 1 hour 30 minutes	50% of the AS Level 25% of the A Level	Core Human Geography Section A: Three data response questions (30 marks) Section B: One structured question from a choice of three (30 marks)
Exam Paper – Year 13	% of GCE	Details
Paper 3- 60 marks 1 hour 30 minutes	25% of the A Level	Advanced Physical Geography Options Candidates answer questions on two of the optional topics. Each topic consists of one structured question (10 marks) and a choice of essay questions (20 marks).
Paper 4 - 60 marks 1 hour 30 minutes	25% of the A Level	Advanced Human Geography Options Candidates answer questions on two of the optional topics. Each topic consists of one structured question (10 marks) and a choice of essay questions (20 marks).

Future Prospects:

Geography provides you with a wealth of transferable skills that enables you to flourish in a wide range of professions including: Advertising, Environmental Sustainability, Surveying, Marketing, Charities, GIS, Data Analyst, Cartographer, Coastal Engineer, Flood Protection Manager, Travel & Tourism, Cultural Guides, Human Rights Officer, and United Nations Diplomat.

SOCIOLOGY

Head of Department
Mrs. Prabha Sinha

Exam Board
Cambridge

Subject Code
9699

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Year 12

The Cambridge International AS Level Sociology qualification has Paper 1 and Paper 2, both of which are compulsory.

Content section	Assessment component	Topics included
Unit 1: The Family	Paper 1	<ul style="list-style-type: none"> • The family and social change • Family roles, marriage and changing relationships • The social construction of age
Unit 1: Theory and methods	Paper 2	<ul style="list-style-type: none"> • The sociological perspective • Socialisation and the creation of social identity • Methods of research • The relationship between theory and methods

For Year 13

Cambridge International A Level candidates have two choices. Candidates who want to take the whole of the Cambridge International A Level qualification at the end of a course of study take all three papers together. Candidates who want to get the Cambridge International A Level qualification in two stages take the Cambridge International AS Level first. If they pass Cambridge International AS Level, they then only need to take Paper 3 in order to complete the Cambridge International A Level.

Content section	Assessment component	Topics included
UNIT 3: Education UNIT 4: Global development UNIT 5: Media UNIT 6: Religion	Paper 3	<ul style="list-style-type: none"> ❖ Education in social context ❖ Structures and processes within schools ❖ Development and inequality ❖ Global issues ❖ Ownership and control of the media ❖ Media representation and effects ❖ Religion and social change ❖ Religious movements

Examination

How will I be assessed?

Exam Papers AS level/ Year 12	% of GCE	Details
Paper 1 – 50 marks 1 hour 30 minutes	50% of total marks	Candidates answer one compulsory data response question and one essay question from a choice of two.
Paper 2 – 50 marks 1 hour 30 minutes	50% of total marks	Candidates answer one compulsory data response question and one essay question from a choice of two.
Exam Papers 13	% of GCE	Details
Paper 3 - 75 marks 3 hours	50% of total marks	Candidates answer three essay style questions from four sections with two questions per section.

Future Prospects:

Social care involves working with vulnerable populations who experience disadvantage or who are marginalised - for example, people with disabilities, people who are homeless or have dependencies, families in the community, older people and recent immigrants. Sociologists analyse the social world and also provide advice to governments, organisations, and communities. Sociologists have analytical and research skills that are valuable in a number of occupations from policy analyst to community worker and journalist. Sociology is a good preparation for careers in business, politics, community work or other professions.

PSYCHOLOGY

Head of Department
Mrs. Prabha Sinha

Exam Board
Cambridge

Subject Code
9990

Content Overview

The AS Level Psychology course is examined at the end of Year 12 and the A-Level at end of Year 13.

Course Details

For Year 12

The Cambridge International AS Level Psychology qualification has Paper 1 and Paper 2, both of which are compulsory. It consists of core studies which are considered in the context of a number of approaches. It includes approaches, issues and debates and research methods which needs to be considered for each study.

Content section	Assessment component	Topics included
Unit 2-5	Paper 1 Approaches, Issues and Debates	<p>Unit 2: Biological approach Core study 1: Canli et al. Core study 2: Dement and Kleitman Core study 3: Schachter and Singer</p> <p>Unit 3: Cognitive approach Core study 1: Andrade (doodling) Core study 2: Baron-Cohen et al. (Eyes test) Core study 3: Laney et al (false memory)</p> <p>Unit 4: Learning approach Core study 1: Bandura et al (aggression) Core study 2: Saavedra and Silverman (button phobia) Core study 3: Pepperberg (parrot learning)</p> <p>Unit 5: Social approach Core study 1: Milgram (obedience) Core study 2: Piliavin et al. (subway Samaritans) Core study 3: Yamamoto et al. (chimpanzee helping)</p>
Unit 1	Paper 2 Research methods	<p>Experiments Self-reports Case studies Observations Correlations Research processes The definition, manipulation, measurement and control of variables Sampling of participants Data and data analysis Ethical considerations Evaluating research: methodological issues</p>

For Year 13

The Cambridge International A Level Psychology qualification has Paper 3 and Paper 4, both of which are compulsory. Candidates are required to study how psychology is applied in two of the following four areas: Abnormality, Consumer behaviour, Health and Organisations.

Content section	Assessment component	Topics included
Unit 6	Paper 3 & Paper 4	Abnormality Schizophrenic and psychotic disorders Bipolar and related disorders Impulse control disorders and nonsubstance addictive disorders Anxiety disorders Obsessive compulsive and related disorders
Unit 7		Consumer Behaviour The physical environment The psychological environment Consumer decision making The product Types of advertising and advertising techniques
Unit 8		Psychology and Health The patient – practitioner relationship Adherence to medical advice Pain Stress Health promotion
Unit 9		Psychology and organisations Motivation to work Leadership and management Group behaviour in organisations Organisational work conditions Satisfaction at work

Examination

How will I be assessed?

Exam Papers - Year 12	% of GCE	Details
Paper 1 – 60 marks 1 hour 30 minutes	50% of total marks	Candidates answers all the questions presented.
Paper 2 – 60 marks 1 hour 30 minutes	50% of total marks	Candidates answers all the questions presented.
Exam Papers – Year 13	% of GCE	Details
Paper 1 – 60 marks 1 hour 30 minutes	25% of total marks	Candidates answers two questions from two specialist options.
Paper 2 – 60 marks 1 hour 30 minutes	25% of total marks	Candidates answers questions from two specialist options. Section A candidate answers two questions from choice of four. Section B candidate answer one design-based question from a choice of four. Section C candidate answers one essay answer from a choice of four.

Future Prospects:

Psychology is a challenging, fascinating, and strongly academic, subject. Psychology is a rapidly expanding subject with strong career potential – the science of the 21st Century. Realistic careers include Management, Marketing, Advertising, Profiling, Recruitment, Education, Coaching / Training, Healthcare, Forensic Law, Forces Officership, Counselling / Therapy, and Research work.

INFORMATION TECHNOLOGY

Head of Department
Mrs. Shirin Farzana

Exam Board
Cambridge

Subject Code
9626

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

Candidates for Cambridge International AS Level Information Technology study topics 1–10. Candidates for Cambridge International A Level Information Technology study all topics. The content of the AS Level topics 1–10 is assumed knowledge for the A Level components.

For Year 12:

Content section	Assessment component	Topics included
Theory	Paper 1	<ol style="list-style-type: none"> 1. Data, information, knowledge and processing 2. Hardware and software 3. Monitoring and control 4. E Safety and health and safety 5. The digital divide 6. Using networks 7. Expert systems and other types of processing
Practical	Paper 2	<ol style="list-style-type: none"> 8. Spreadsheets 9. Database and file concepts 10. Sound and video editing

For Year 13:

Content section	Assessment component	Topics included
Theory	Paper 3	<ol style="list-style-type: none"> 11. Emerging technologies 12. Role and impact of IT in society 13. Networks 14. Project management 15. System life cycle
Practical	Paper 4	<ol style="list-style-type: none"> 16. Graphics creation 17. Animation 18. Mail merge 19. Programming for the web

Examination

How will I be assessed?

Paper	Weighting	Details
AS Level		
Paper 1 - 90 marks 1 hour 45 minutes	50% of AS Level 25% of A Level	This written paper tests sections 1–10 of the syllabus content. Candidates answer each question in the spaces provided on the question paper. All questions are compulsory.
Paper 2 - 110 marks 2 hours 30 minutes	50% of AS Level 25% of A Level	This paper tests sections 8–10 of the syllabus content. Candidates will also need to use their previous knowledge from sections 1–7. All tasks are compulsory. Candidates must use the most appropriate software and the most appropriate methods.
A level		
Paper 3 - 90 marks 1 hour 45 minutes	25% of A Level	This written paper tests sections 11–19 of the syllabus content. The content of sections 1–10 is assumed knowledge. Candidates answer each question in the spaces provided on the question paper. All questions are compulsory.
Paper 4 - 110 marks 2 hours 30 minutes	25% of A Level	This paper tests sections 16–19 of the syllabus content, and sections 8–9 of the syllabus content within a problem-solving context. Candidates will also need to use their previous knowledge from all sections of the syllabus. All tasks are compulsory. Candidates must use the most appropriate software and the most appropriate methods.

Future Prospects:

With further training or study, students can go into careers such as End User Support Technician or IT Support Officer or Technician. This syllabus prepares you for employment and provides a good grounding to go on to a more advanced course for IT Practitioners, an advanced course in ICT or Installation and Networking.

COMPUTER SCIENCE

Head of Department
Mrs. Shirin Farzana

Exam Board
Cambridge

Subject Code
9618

Content Overview

The AS course is examined at the end of Year 12 and the A-Level as a whole at end of Year 13.

Course Details

For Cambridge International AS and A Level Computer Science, candidates may choose to take:

- Papers 1, 2, 3 and 4 in the same examination series, leading to the full Cambridge International A Level
- Papers 1 and 2 (for the AS Level qualification) in one series, then Papers 3 and 4 (for the full Cambridge International A Level) in a later series
- Papers 1 and 2 only (for the AS Level qualification).

For Year 12:

Content section	Assessment component	Topics included
AS	Section 1 Theory Fundamentals	<ol style="list-style-type: none"> 1. Information representation 2. Communication and Internet technologies 3. Hardware 4. Processor fundamentals 5. System software 6. Security, privacy and data integrity 7. Ethics and ownership 8. Database and data modelling
AS	Section 2 Fundamental Problem-solving and Programming	<ol style="list-style-type: none"> 9. Algorithm design and problem-solving 10. Data types and structures 11. Programming 12. Software development

For Year 13:

Content section	Assessment component	Topics included
A Level	Section 3 Advanced Theory	<ol style="list-style-type: none"> 13. Data representation 14. Communication and Internet technologies 15. Hardware and virtual machines 16. System software 17. Security 18. Artificial Intelligence (AI) 19. Computational thinking and problem-solving 20. Further programming
A Level	Section 4 Practical	<ol style="list-style-type: none"> 19. Further programming 20. Software development

Examination

How will I be assessed?

Exam Papers	Weighting	Details
AS Level		
Paper 1 - 75 marks 1 hour 30 minutes	50% of AS Level 25% of A Level	This written paper contains short-answer and structured questions. There is no choice of questions.
Paper 2 - 75 marks 2 hours	50% of AS Level 25% of A Level	This written paper contains short-answer and structured questions. There is no choice of questions. Topics will include those given in the pre-release material.
A level		
Paper 3 - 75 marks 1 hour 30 minutes	25% of A Level	This written paper contains short-answer and structured questions. There is no choice of questions.
Paper 4 - 75 marks 2 hours	25% of A Level	This written paper contains short-answer and structured questions. There is no choice of questions. Topics will include those given in the pre-release material

Future Prospects:

- A Level Computer Science offers transferrable and desirable professional skills leading to jobs in coding, support, project management, systems analysis, web development, network management, software development, research and many more.
- Their skills are highly applicable in Business, Finance and Mathematics all of which are highly desirable subjects for routes into Banking, Actuarial Science, Insurance and Research.
- With further training or study of Computer science, students can pursue into careers such as:
 - Software Developers
 - App Developers
 - Software Engineers
 - Web Developers
 - Graphic Designer
 - IT Managers
 - IT System Engineer
 - Network Administrator
 - IT Administrator

BTEC INTERNATIONAL LEVEL 3

Head of Department
Mrs. Shalini

Exam Board
Pearson

Specification

BTEC is the world's most successful and well-applied learning brand, and has been engaging learners in practical, interpersonal and thinking skills for over 25 years. BTEC is vocational qualification designed to give students the skills they need to either move on to higher education or go straight into employment.

BTEC International Level 3 programmes allow learners to apply knowledge and skills to their local environment and context. With a focus on practical, skills-based learning, BTEC courses are designed around a number of themed units. Learners will study a number of units for which they will need to present evidence, based on actual work and studies. This allows them to demonstrate their skills and knowledge, while building their portfolio of work. Rather than testing everything together at the end of the course, BTECs give learners the opportunity to show what they have learnt in each unit and build on their achievements as they progress. That means there are plenty of chances for them to learn, improve and succeed.

The best-known BTEC options offered at Winchester School are

- Pearson BTEC International Level 3 Diploma in Information Technology
- Pearson BTEC International Level 3 Diploma in Information Technology
- Pearson BTEC International Level 3 Diploma in Applied Science

Aims of the Course

The key to doing well in this subject is time management. There will always be coursework deadlines to meet, so even though there is no pressure of examinations to worry about, it is not an easy option. The benefit of undertaking a coursework subject like BTEC is that when you have submitted work, you can have the opportunity to improve it, unlike an examination subject which is a one off assessment. You will develop excellent research skills and also become an excellent independent learner. These are all valuable skills when moving onto higher education or the workplace.

Assessment Objectives

BTECs are made up of a number of units, which are usually assessed through assignments that are both set and marked by your teacher. Assignments involve a series of tasks designed around a work-related, real-life scenario. These assignments can be in various formats such as written essays, video recordings or group presentations as determined and accepted by your teachers. Assignments give learners the chance to build knowledge and skills over time and deliver a complete, integrated project using a combination of knowledge, skills and behaviours.

Note - BTEC is a 2 year program it can be studied alone or as a hybrid program in combination with A levels. Please note that One BTEC is equivalent to 2 A levels. BTEC is a highly recognized in UK and does not require equivalency from UAE ministry of education for universities in UK. Please check on acceptance of BTEC in the university you wish to pursue.

Pearson BTEC International Level 3 Diploma in Business

The specification is designed to appeal to both full-time learners interested in a career in business and to those who already have experience of working in the sector. Learners can focus on their career aspirations, or work area within the specification in which there are six specialist pathways consisting of Finance, Management, Marketing, Law, Administration, and Human Resources.

Mandatory units

There are five mandatory units, three internal units and two set assignment units. Students must complete and achieve a Pass or above in all mandatory units.

Optional units

Students must complete optional units totalling at least 240 Guided Learning Hours (GLH).

Mandatory Units	
Unit	Content
1	Exploring Business
2	Research and Plan a Marketing Campaign
3	Business Finance
4	Managing an Event
7	Business Decision Making
Optional Units	
5	International Business
6	Principles of Management
8	Human Resources
9	Team Building in Business
10	Recording Financial Transactions
11	Financial Statements for Public Limited Companies
12	Financial Statements for Specific Businesses
13	Cost and Management Accounting
14	Investigating Customer Service
15	Investigating Retail Business
16	Visual Merchandising
17	Digital Marketing
18	Creative Promotion
19	Pitching for a New Business
20	Business Ethics
22	Market Research
23	Work Experience in Business
24	Branding
25	Relationship Marketing
26	Procurement Processes in Business
27	International Logistics
28	Sales Techniques and Processes
29	Health and Safety in the Workplace
30	Career Planning
31	Effective Project Management
32	Business and Environmental Sustainability

Pearson BTEC International Level 3 Diploma in Applied Science

The Pearson BTEC qualifications in this specification will appeal to learners who prefer portfolio-based assessment covering a variety of scientific investigations.

Units within the qualification cover areas of laboratory science, forensic science, medical science, environmental science and biological, chemical and physical science to provide a route to employment in the science industry or within organisations that use science. These can include roles such as:

- working as a quality control technician/analyst, where the employee works in a production plant laboratory carrying out analytical tests using modern instrumentation, ICT and data interpretation
- working in a hospital as a medical physics technician supporting the use of X-ray and other imaging/ scanning equipment
- working in a research laboratory in the development of new drugs. Managing projects that include setting up apparatus, measuring and handling chemical substances, following procedures, carrying out observations and measurements, separating and analysing products
- working in the chemical industry, involved with testing materials
- working with the forensic science service or using their analytical skills in the chemistry industry
- working in chemical companies developing fertilisers and other plant feeds
- working for a scientific magazine or journal, editing and proofreading articles on issues such as applications and implications of new scientific discoveries and developments
- working in a biotechnology laboratory carrying out fermentation and purification processes.

Mandatory units

There are seven mandatory units, of which three are set assignment units. Students must complete and achieve a Pass or above in all mandatory units.

Optional units

Students must complete optional units to a minimum value of 240 GLH.

<u>Mandatory Units</u>	
<u>Unit</u>	<u>Content</u>
1	Principles and Applications of Biology I
2	Principles and Applications of Chemistry I
3	Principles and Applications of Physics I
4	Investigative Project Skills
5	Principles and Applications of Biology II
6	Principles and Applications of Chemistry II
7	Principles and Applications of Physics II
<u>Optional Units</u>	
11	Functional Physiology of Human Body Systems
12	Human Regulation and Reproduction
13	Biological Molecules and Metabolic Pathways
14	Genetics and Genetic Engineering
15	Diseases and Infections
16	Applications of Inorganic Chemistry
17	Electrical Circuits and their Applications
18	Astronomy and Space Science
19	Microbiology and Microbiological Techniques

Pearson BTEC International Level 3 Diploma in Information Technology

BTEC Level 3 in IT qualifications are designed to relate to the National Occupational Standards for the sector. On successful completion of a BTEC Level 3 in IT qualification, learners can progress into or within employment and/or continue their study in the same vocational area. This specification provides content and structures that help learners to acquire the skills and knowledge needed to work as professionals in the IT sector.

Mandatory units

There are two mandatory units that are set-assignment assessment units. Learners must complete and achieve a Pass or above in the two mandatory internal units.

Optional units

Learners must complete optional units to a minimum value of 540 GLH.

<u>Mandatory units</u>	
Unit	Content
1	Information Technology Systems – Strategy, Management and Infrastructure
6	Website Development
<u>Optional units</u>	
2	Creating Systems to Manage Information
3	Using Social Media in Business
4	Programming
5	Data Modelling
7	Mobile Apps Development
8	Computer Games Development
9	IT Project Management
10	Big Data and Business Analytics
11	Cyber Security and Incident Management
12	IT Technical Support and Management
13	Software Testing
14	Customising and Integrating Applications
15	Cloud Storage and Collaboration Tools
16	Digital 2D and 3D Graphics
17	Digital Animation and Effects
18	The Internet of Things
19	Enterprises in IT
20	Business Process Modelling Tools

Pearson BTEC International Level 3 Diploma in Hospitality

BTEC Level 3 qualifications in hospitality give learners the opportunity to make progress in the sector, whether their chosen route is employment, an apprenticeship or university. All qualifications for this sector introduce learners to essential understanding in the following areas of the hospitality industry:

- scale and diversity
- classification systems
- organisation and structure of businesses operating in this industry
- purpose of support functions in hospitality such as finance and marketing.

Mandatory units

There are five mandatory units, of which four are set assignment units. Learners must complete and achieve a Pass or above in the mandatory unit.

Optional units

Learners must complete at least seven optional units.

<u>Mandatory units</u>	
Unit	Content
1	The Hospitality Industry
2	Environment and Sustainability in the Hospitality Industry
3	Customer Service Provision in Hospitality
4	The Principles of Leadership and Supervision
5	Cost Control for Hospitality Supervisors
<u>Optional units</u>	
6	Hospitality Business Enterprise
7	Supervise Food Service Operations
8	Supervise Food and Beverage Service
9	Supervise Alcohol Beverage Service
10	Supervision of Food Safety in Hospitality
11	Contemporary Global Cuisine
12	The Cuisine of Your Country
13	European Cuisine
14	Luxury Hospitality
15	Front Office Operations
16	Accommodation Operations
17	Team Development
18	Conference and Banqueting

BTEC International Level 3 University Recognition

These universities have indicated that they will consider one or more of the BTEC International Level 3 qualifications as an entry qualification to relevant courses. Students should be aware that university admission criteria are always subject to change and understand the course entry requirements for both subject and grade before applying.

Central Queensland University	Australia	London Metropolitan University	UK
Curtin University	Australia	London South Bank University	UK
University of New England	Australia	Queen Mary's London	UK
University of Tasmania	Australia	Sheffield Hallam University	UK
Acadia University	Canada	St Mary's University	UK
Brock University	Canada	University of Aberdeen	UK
Mount Saint Vincent University	Canada	University of Bournemouth	UK
University of Lethbridge	Canada	University of Chichester	UK
City Unity College	Cyprus	University of East Anglia	UK
University of Central Lancashire Cyprus	Cyprus	University of Huddersfield	UK
EEGP Design Institute	France	University of Surrey	UK
Hong Kong Shue Yan University	Hong Kong	University of South Wales	UK
Al Hussain Technical Universities	Jordan	University of the West of England	UK
Luminus Technical University College	Jordan	University of Ulster	UK
Riara University	Kenya	University of Wolverhampton	UK
University of Saint Joseph	Macao	University of York	UK
African Leadership University	Mauritius	Westminster University	UK
Auckland Institute of Studies	New Zealand	Columbia College Chicago	US
Massey University	New Zealand	Johnson and Wales University	US
Northwestern University in Qatar	Qatar	Miami University Ohio	US
Istanbul Gelisim University	Turkey	Northwood University	US
Istanbul Okan University	Turkey	Slippery Rock University	US
American University of Dubai	UAE	Suffolk University, Boston Massachusetts	US
University of Bolton Ras Al Khaimah Campus	UAE	Temple University	US
Aberystwyth University	UK	Texas Wesleyan University	US
Bangor University	UK	Western New England University	US
Brighton University	UK	Krems University	Uzbekistan
Brunel University	UK	TEAM University	Uzbekistan
Cardiff Metropolitan University	UK	Turin Polytechnic University in Tashkent	Uzbekistan
City, University of London	UK		
Falmouth University	UK		
John Moores University	UK		
Keele University	UK		
Leeds Trinity University	UK		
Lincoln University	UK		

USEFUL WEBSITE

CAREERS

www.u-explore.com – a useful guide to careers and employability solutions

www.prospects.ac.uk – this site will show you which careers you can do with a range of degrees. It has case studies, employment prospects and examples of jobs that you can consider. Also on this site is ‘What do Graduates Do?’. This shows statistical information about the destinations of graduates from a wide range of disciplines. This is an essential site to visit when deciding on your degree.

HIGHER EDUCATION

www.ucas.com – the first place to look for course searches, links to HE websites and online applications

www.unifrog.com

www.ukcoursefinder.com – another good way to look at specific courses

www.timesonline.co.uk (search for university in the search bar) – a site that looks at university rankings and enables you to see which institutions are highly ranked. Use as a guide only – data goes out of date quickly and there are many other factors to consider other than just the rankings.

www.bestvalueHE.org.uk – helps you to find detailed graduate information – what happens to students after they graduate.

www.studentfinance.direct.gov.uk – all the information you will need regarding finance to get to university and how to finance your time there.