

Aitchison College
Senior School
CURRICULUM GUIDE
2024-2025



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INTRODUCTION

Aitchison College is committed to offer a curriculum that is relevant to the needs of boys in the 21st century, underpinned by the ethics and principles of traditional norms and a continuing recognition of the history of Aitchison College. In essence, our task is to help nurture young gentlemen who are able to hold their own in discussions and debate while being good listeners and objective thinkers. Ultimately, we wish to instill the intellectual courage that will enable our boys to make their mark on the world, whether that is, in the professions, the military, political life or service to mankind.

Aitchison's Curriculum Policy emphasizes the need for all subjects to contain more than a body of knowledge. Boys are encouraged to think and argue viewpoints; to utilize their learning in such a way that it will bear relevance to both national and international perspectives. Teachers are therefore obligated to ensure that the teaching process is responsive to different learning styles and is a balanced pedagogy of instruction and exploration of ideas.

Aitchison is a Cambridge International Examination (CIE) Centre: Accordingly, much of the core teaching is based on the principles espoused by Cambridge, recognizing and responding to the taxonomy of teaching, planned schemes of work, and inquiry based learning. Syllabi are assessed in formative and summative ways.

Aitchison's Curriculum Policy is overseen by the three Heads of Schools. The Principal assumes ultimate authority for the delivery of teaching and learning. The Academic Committee holds authority to discuss and recommend changes to the Curriculum Policy.

Please Note: The students following the Federal Matriculation streamline will only be allowed to take the following compulsory subjects:

English, Urdu, Mathematics, Pakistan Studies, Islamiyat, Biology, Chemistry, Physics.

The student must have a minimum of 'B' grade across all subjects to be able to opt for the Federal Matriculation (Science) streamline.

Programs are affiliated with Federal Board of Intermediate and Secondary Education (FBISE).

SCIENCE

BIOLOGY

Head of Department: Dr. Huma Izhar

CHEMISTRY

Head of Department: Farhat-ul-Ain Sahgal

PHYSICS

Head of Department: Sohail Ahmad Siddiqi

COMPUTER SCIENCE

Head of Department: Asim Pervaiz

BIOLOGY

AIMS

- The Biology program prepares students for life – helping them to develop an informed curiosity and lasting passion for learning.
- Biology as a subject at IGCSE and A level helps students become confident, responsible, reflective, innovative and engaged and ensures students tackle the demands of tomorrow's world.
- We aim to deliver the course content through practical work as far as is possible, teaching the key principles of the scientific method. We believe this approach builds transferable skills that encourages our students to view the world in a critical way and develops resilience and creativity in the pursuit of solutions to problems.

Syllabus content (IGCSE)

- IGCSE Biology 0610

ASSESSMENT DETAILS

IGCSE

P2 MCQs	40 Mark	45 min.
P4 Theory	80 Mark	1hr, 15 min.
P6 ATP	40 Mark	1 Hour

NATURE OF COURSE

This year we will be following Cambridge Secondary 2 IGCSE which is typically for learners aged 14 to 16 years. For the 16-18 years we offer the Cambridge International AS and A Level Biology degree. Cambridge International AS and A Level Biology encourage learners to explore their subject in depth. The syllabus has been designed, to help learners develop not only subject knowledge, but also a strong understanding of some of the key concepts that are critical to mastering the subject.

Syllabus content (AS/A Level)

- AS/A Level Biology 9700
AS/A LEVEL

AS and A Level curricula are flexible. It is possible to offer almost any combination from a wide range of subjects. Cambridge International A Level is typically a two-year course, and Cambridge International AS Level is typically one year. Some subjects can be started as a Cambridge International AS Level and extended to a Cambridge International A Level.

Three Assessment approaches at AS and A Level:

- 1) Students take all papers of the Cambridge International A Level course in the same examination series, usually at the end of the second year of study.
- 2) Students take the Cambridge International AS Level in Year 1 and in Year 2 complete the Cambridge International A Level.
- 3) Students take the Cambridge International AS Level only. The syllabus content for Cambridge International AS Level is half of a Cambridge International A Level.

ASSESSMENT DETAILS**AS LEVEL**

P1 MCQs	40 marks	1 Hour, 15 min
P2 Theory	60 marks	1 Hour, 15 min
P3 Practical	40 marks	2 Hours

A LEVEL

P4 Theory	100 marks	2 Hours
P5 Planning, Analysis and Evaluation	30 marks	1 Hour, 15 min

ENRICHMENT OPPORTUNITIES

The Biology department oversees the Aitchison College Humanitarian and Environment Society. This is run by the students and has an executive body.

- All members of the society are involved in organizing activities throughout the academic year.
- They hold talks and trips, visit hospitals, organize charity drives, blood donation camps, etc.
- Students are involved in Biology competitions such as the Biology/Ecology Challenges run by the Society.
- Various competitions are held at national and international levels.
- Students use the Harkness method of discussion on a regular basis.

BEYOND A LEVEL

Universities value learners who have a thorough understanding of key concepts in Biology, an in-depth knowledge of Biology's most important themes and strong practical skills. Cambridge International AS and A Level Biology helps learners develop the knowledge and skills that will prepare them for successful university study. Our students also develop lifelong skills of scientific enquiry, confidence in technology, and communication and teamwork skills.

CHEMISTRY

AIMS

We humans are all chemists. We use chemicals every day and perform chemical reactions without thinking much about them. Chemistry is important because everything you do is chemistry! Even your body is made of chemicals. Chemical reactions occur when you breathe, eat, or just sit there reading. All matter is made of chemicals, so the importance of chemistry is that it's the study of everything. Chemistry is the "central science" because it connects other sciences to each other, such as biology, physics, geology, medicine, forensic, material sciences, environmental science and many more. Chemistry helps you to understand the world around you. It teaches useful skills, because Chemistry is a practical Science.

At Aitchison College Chemistry Program aims are to enable students to:

- acquire scientific knowledge and understanding of scientific theories and practice
- develop a range of experimental skills, including handling variables and working safely
- use scientific data and evidence to solve problems and discuss the limitations of scientific methods
- communicate effectively and clearly, using scientific terminology, notation and conventions
- understand that the application of scientific knowledge can benefit people and the environment
- enjoy science and develop an informed interest in scientific matters which support further study.

ASSESSMENT DETAILS

IGCSE CHEMISTRY 0620 Extended Assessment

	Marks		
Paper 2 Multiple Choice	40	45 Minutes	30 %
Paper 4 Theory	80	1 Hour 15 Minutes	50 %
Paper 6: Alternative to Practical	40	1 Hour	20 %

FOR SYLLABUS AS/A LEVEL CHEMISTRY 9701

			AS LEVEL	A LEVEL
Paper 1 Multiple Choice	40	1 Hour 15 Minutes	31%	15.5%
Paper 2 AS Level Structured Questions	60	1 Hour 15 Minutes	46%	23%
Paper 3 Advanced Practical Skills	40	2 Hours	23%	11.5%
Paper 4 A Level Structured Questions	100	2 Hours		38.5 %
Paper 5 Planning, Analysis and Evaluation	30	1 Hour 15 minutes		11.5%

ENRICHMENT OPPORTUNITIES

Aitchison College encourages to amalgamate meta cognition to make interactive and effective classroom environment. This involves multiple teaching-learning styles, primarily based upon;

- hands on activities
- experimental analysis
- effective lessons through power points, videos and animations, mind mapping activities
- learning through Harkness

Students are actively involved in extracurricular activities like ACSEC, Aitchison college science and engineering concept, for which they are highly motivated to involve chemistry concepts for presenting their projects.

Students are given extended tutorial classes and practicals on Saturdays to polish up their skills.

BEYOND A LEVEL

AS-A level Chemistry lays a firm and a deep foundation for students to pursue higher education in variety of fields such as;

- Medicine
- Dentistry
- Engineering
- Computers
- Bio-medical
- Bio chemistry
- Pure sciences (chemistry or biology)

- Dietetics
- Environmental sciences
- Geology/ earth sciences
- Material sciences
- Optometry
- Orthotic
- Pharmacy
- Physiotherapy
- Psychology
- Speech therapy
- Sport sciences
- Veterinary science
- Pharmacology
- Forensic Science

PHYSICS

AIMS

The Course Cambridge IGCSE is typically for learners aged 14 to 16 years. The Course Cambridge International AS & A Level Physics (9702) is typically for learners aged 16 to 18 years. The Course Cambridge IGCSE Physics (0625)/ Cambridge emphasizes a broad and balanced study between knowledge and skills. It develops learners' skills in creative thinking, enquiry, problem solving and is structured so that the students build practical skills and theoretical knowledge. Cambridge IGCSE Physics develop learner knowledge, understanding and skills in:

- Subject content
- Applying knowledge and understanding to familiar and new situations
- Intellectual enquiry
- Flexibility and responsiveness to change
- Influencing outcomes
- Cultural awareness.

Cambridge International AS and A Level Physics builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

NATURE OF COURSE

Aitchison College offers Cambridge IGCSE and Cambridge International AS and A Level Physics. Cambridge IGCSE is widely recognized by higher education institutions and employers around the world as evidence of academic achievement. Many universities require a combination of Cambridge International A Levels and Cambridge IGCSEs to meet their entry requirements.

EXPERIMENTAL IMPORTANCE

The Courses gives great importance to Experimental knowledge. The students taking the Physics course are required to:

Carry out techniques, use apparatus, handle measuring devices and materials effectively and safely, make and record observations, measurements and estimates with due regard to precision, accuracy and units; Interpret, evaluate and report upon observations and experimental data; Identify problems, plan and carry out investigations, including the selection of techniques, apparatus, measuring devices and materials;

ASSESSMENT DETAILS

IGCSE Physics 0625

For the **Cambridge IGCSE** in Physics, Candidates take three components: Paper 2, Paper 4 and Paper 6.

- | | | | |
|--|---------------------------------|--------------------------|-----------------|
| i. Paper 2: | Multiple Choice | 45 minutes | 40 marks |
| 40 four-choice multiple-choice questions. Questions will be based on the extended subject content (Core and Supplement). | | | |
| ii. Paper 4: | Theory | 1 Hour 15 minutes | 80 marks |
| Short-answer and structured questions. Questions will be based on the extended subject content (Core and Supplement). | | | |
| Paper 6: | Alternative to Practical | 1 Hour | 40 marks |
| Questions will be based on the experimental skills in Section 4. | | | |

For the **Cambridge AS and A Level** in physics, candidates take five components

(Paper 1, Paper 2 and Paper 3 in AS level and Paper 4 and Paper 5 in A level accordingly)
five components in total: Paper 1 and Paper 2, Paper 3, Paper 4 and Paper 5.

i. Paper 1: Multiple Choice	1 Hour 15 minutes	40 marks
40 compulsory multiple-choice questions of the direct choice type. The questions involve four response items. Total marks attainable are 40 marks.		
ii. Paper 2: AS Level Structured Questions	1 Hour 15 Minutes	60 marks
This paper consists of a variable number of questions of variable mark value. All questions will be based on the AS Level syllabus content. Candidates will answer all questions.		
iii. Paper 3 Advanced Practical Skills	2 Hours	40 marks
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. Candidates will answer both questions.		
iv. Paper 4 A Level Structured Questions	2 Hours	100 marks
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. Candidates will answer all questions.		
v. Paper 5 Planning, Analysis and Evaluation	1 Hour 15 minutes	30 marks
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. Candidates will answer both questions.		

ENRICHMENT OPPORTUNITIES/SUPPLEMENTATION

During the courses Aitchison College encourages the use of the Harkness technique in classes. The College provides weekly help for students who are ready to go the extra mile. Each department is available on alternate weekends for extra classes. Physics Course extra classes can also be taken on alternate weekends. There are other activities like tutorials, guest speakers/careers night etc.

BEYOND A LEVEL/UNIVERSITY EDUCATION

Every year thousands of learners with Cambridge International AS & A Levels gain places at leading universities worldwide. Cambridge International AS & A Levels are accepted and valued by top universities around the world including those in the UK, US (including Ivy League universities), European nations, Australia, Canada and New Zealand.

COMPUTER SCIENCE

AIMS

- Our aim is to balance knowledge, understanding and skills in our programmers and provide qualifications to enable students to become effective learners; thus, provide a solid foundation for their continuing educational journey. Through our professional development courses and our support materials for Cambridge IGCSE, we provide the tools to enable teachers to prepare learners to the best of their abilities and work with us in the pursuit of excellence in education.

Cambridge IGCSE Computer Science syllabus aims are to develop:

- Computational thinking, that is thinking about what can be computed and how, and include consideration of the data required
- Understanding of the main principles of solving problems by using computers
- Understanding that every computer system is made up of sub-systems, which in turn consist of further sub-systems
- Understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communications and people
- Skills necessary to apply understanding to solve computer-based problems using a high-level programming language.
- An understanding of the development and use of automated and emerging technologies

NATURE OF COURSE

The main areas in computer science are software engineering, graphics designing, networks, databases, multimedia and artificial intelligence and many more. Some of the most exciting new work in computer science is emerging at combining computer science and other study disciplines. For instance, computer science is evolving in the same way as biological research is conducted in fundamental ways, leading to a new field called bio-informatics by combining Biology and Computer Science. Computer simulations have made it possible to study problems in physics, chemistry, economics and geology that were difficult without computers

Students will study the design of algorithms in relation to a range of problems, to produce robust programs that consider computational logic and data representation whilst utilizing suitable integrated development environments that aid with debugging. Learners will also gain an understanding of the components that make up a computer system and the way in which hardware and software interact to form secure, networked connections. Ethical, legal, cultural and environmental implications of digital systems.

ASSESSMENT DETAILS

Cambridge IGCSE Computer Science, candidates take two components: Paper 1 and Paper 2. (0478)

- | | | |
|--|-----|----------|
| • Computer Systems: 1 Hour 45 minutes (written paper) | 50% | 75 Marks |
| • Algorithms, Programming and Logic: 1 Hour 45 minutes (written paper) | 50% | 75 Marks |

Cambridge A Level Computer Science, candidates take four components: Paper 1, II, III, IV. (9618)

- | | | |
|---|-----|----------|
| • Theory Fundamentals: 1 Hour 30 minutes (written paper) | 25% | 75 Marks |
| • Fundamental Problem-solving and Programming Skills: 2 Hours (written paper) | 25% | 75 Marks |
| • Advanced Theory: 1 Hour 30 minutes (written paper) | 25% | 75 Marks |
| • Practical: 2 Hours 30 minutes | 25% | 75 Marks |

Candidates answer all questions on a computer without Internet or e-mail facility

ENRICHMENT OPPORTUNITIES

- Regular meetings that discuss computer science related problems and a range of technological affairs: Advanced Python programming; Java development, Game programming.
- External and internal school speakers that provide focus for further discussion and act as a source of inspiration for projects and ideas. It is thought appropriate to invite our old students who have taken IT as their career and are currently working in the field as speakers. It is intended that this will motivate our students to learn about advancements in computer technology and related job market and opportunities.
- Trips to exhibitions, established technological sites and businesses which give students first-hand experience of how computer science has played its role in changing conditions around the globe.
- Providing opportunities to participate in external competitions as well as organizing competitions internally.
- Restructuring the role of the Senior School Computer Society and transforming it into Computer Society, Aitchison College by extending its role to Junior and Prep schools.
- Computer Science combined with other fields of study. Computer Science is unlike many other disciplines in that there is a large intersection with other fields. This makes it possible to "dual-major" in computer science and another field in a meaningful way. For example:
 - Computer Science with Biology can lead to a career in Bio-informatics.
 - Computer Science with Economics will help solve problems in Economics via computer simulation.
 - Computer Science with Political Science or Criminal Justice can lead to a career in security and information policy.
 - Computer Science with Fine Arts has obvious implications for a career in animation.
 - Computer Science with Business can lead to some types of IT careers.

BEYOND A LEVEL /UNIVERSITY EDUCATION

The QS World University Rankings by Subject includes a ranking of the world's top universities for computer science. Entry requirements for computer science degrees usually emphasize Further Mathematics, with some institutions asking for a background in Physics. If you would like a career as a programmer, computer engineer and would like to work in the telecommunications industry then this course is appropriate.

- Computer Information Systems.
- Information Technology.
- Software Engineering.
- Computer Engineering.
- Electronic Commerce.
- Data Science.
- Game Development.
- Artificial Intelligence and Machine Learning.

You may find these subjects have different A-level requirements so if you want to keep your degree options open, be sure to check the entry requirements of specific courses before you finalise your choices.



TECHNOLOGY

INFORMATION & COMMUNICATION TECHNOLOGY

Head of Department: Asim Pervaiz

INFORMATION & COMMUNICATION TECHNOLOGY

AIMS

- To empower the students develop an understanding about the basics of ICT
- Implementation of ICT concepts in our daily life
- Developing a problem-solving approach in our daily lives
- Integrating the ICT with other disciplines and tools
- Knowledge of ICT including new and emerging technologies
- Autonomous and discerning use of ICT
- Skills to enhance work produced in a range of contexts
- Skills to analyze, design, implement, test and evaluate ICT systems
- Skills to consider the impact of current and new technologies on methods of working in the outside world and on social, economic, ethical and moral issues
- ICT-based solutions to solve problems
- Ability to recognize potential risks; using ICT, use safe, secure & responsible practice

NATURE OF COURSE

- The course is designed to fit the needs of the people coming from all walks of life.
- It suits the needs of many of the young professionals willing to seek career in any field, i.e., Arts, Humanities, Sciences, etc.
- Hands-on experience with the MS Office tools and technologies.
- Information and Communication Technology (ICT) in the IGCSE curriculum encompasses the use of a wide range of digital tools, media and learning environments for teaching, learning and assessing.
- The Information Communication Technology (0417) syllabus combines theoretical and practical studies focusing on the ability to use common software applications, including word processors, spreadsheets, databases, interactive presentation software, email, web browsers and website design.

ASSESSMENT DETAILS

IGCSE Information & Communication Technology(0417) consists of two major components

• Paper 1 - Theory: (Written Paper)	1 Hours 30 minutes	40%
• Paper 2 - Practical: (Document Production, Databases & Presentation)	2 Hours 15 minutes	30%
• Paper 3 - Practical: (Spread Sheets & Website Authoring)	2 Hours 15 minutes	30%

Assessment Objectives:

- AO1: Recall, select and communicate knowledge and understanding of ICT
- AO2: Apply knowledge, understanding and skills to produce ICT-based solutions
- AO3: Analyze, evaluate, make reasoned judgments and present conclusions

ENRICHMENT OPPORTUNITIES:

- While studying Cambridge IGCSE and Cambridge International A Levels, students broaden their horizons through a global perspective and develop a lasting passion for learning.
- understanding and using applications.
- using Information and Communication Technology (ICT) to solve problems.
- analyzing, designing, implementing, testing and evaluating ICT systems, ensuring that they are fit for purpose.
- understanding the implications of technology in society, including social, economic and ethical uses.
- awareness of the ways ICT can help in home, learning and work environments.

BEYOND A-LEVEL EDUCATION:

- Students will develop a greater awareness of how applications are used in the workplace, and consider the impact of new technologies on methods of working and on social, economic, ethical and moral issues.
- The skills learnt will be useful to them in their work across the curriculum, and will prepare them for future employment.
- As the assessment of the practical tests is hardware and software independent, any hardware platform, operating system, and applications packages can be used, providing that students have the opportunity to demonstrate the full range of skills in the syllabus.
- The course aims to develop each student's skills base in a range of software applications and widen their knowledge and understanding of the role of ICT in the world today.

MATHEMATICS

MATHEMATICS

ADD MATHEMATICS

FURTHER MATHEMATICS

Head of Department: Tasneem Aslam Zaeem

MATHEMATICS

AIMS

- The syllabus aims/summarizes the context in which you should view the syllabus content and describes the purposes of a course based on this syllabus. They are not listed in order of priority. The aims are to enable candidates to:
- Develop their mathematical knowledge and oral, written and practical skills in a way which encourages confidence and provides satisfaction and enjoyment.
- Read mathematics, and write and talk about the subject in a variety of ways.
- Develop a feel for number, carry out calculations and understand the significance of the results obtained.
- Apply mathematics in everyday situations and develop an understanding of the part which mathematics plays in the world around them.
- Solve problems, present the solutions clearly, check and interpret the results.
- Develop an understanding of mathematical principles.
- Recognize when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem.
- Use mathematics as a means of communication with emphasis on the use of clear expression.
- Develop an ability to apply mathematics in other subjects, particularly science and technology.

NATURE OF THE COURSE IGCSE

In IGCSE students take two papers P2 and P4. Aitchison is offering the students only the Extended course.

AS level Mathematics Course is divided into two parts; pure and applied mathematics in first year of AS level students take two paper P1 (pure) and P4 (mechanics) and in the second year of the AS level students take P3 (pure) and P6 (statistics).

ASSESSMENT DETAILS

IGCSE 0580

Candidates who follow the extended curriculum take Paper 2 & 4 are eligible for A* to E grades.

Paper 2 Non-calculator (Extended)	2 Hours	100 marks	50%
Paper 4 Calculator (Extended)	2 Hours	100 marks	50%

A/AS LEVEL 9709

Paper 1 (AS)	1 Hour 50 minutes	75 marks	30%
Paper 3 (A2)	1 Hour 50 minutes	75 marks	30%
Paper 4 (AS)	1 Hour 15 minutes	50 marks	20%
Paper 5 (A2)	1 Hour 15 minutes	50 marks	20%

There is no choice of questions in any of the question papers and questions will be arranged approximately in order of increasing mark allocations. It is expected that candidates will have a calculator with standard 'scientific' functions available for use for all papers in the examination. Computers, graphical calculators and calculators capable of algebraic manipulation are not permitted. A list of formulae and tables of the normal distribution (MF9) is supplied for the use of candidates in the examination. Details of the items in this list are given for reference in Section 6.

ENRICHMENT OPPORTUNITIES

- Students are also encouraged to attend the after school classes on the concerned topics.
- After-school classes are held regularly. Moreover, a part-time teacher has been specifically assigned to teach Mathematics to the students of boarding houses.
- Regular meetings in the Department to discuss class issues and problems.
- The Harkness method, or Harkness discussion is a teaching and learning method involving students seated in a large, oval shape to discuss ideas in an encouraging, open-minded environment. It could help and enable students to share their ideas through an open discussion in the class.
- The Math Society also participated in various Math related competitions such as the ICAS Mathematics and Science competition hosted by Educational Assessment Australia.
- The Mathematics Society also participated in the Pakistan Mathematics Contest, the National Mathematics Contest and the prestigious International Kangaroo Mathematics Contest.

BEYOND A LEVELS

- Just look around. Some of civilization's most prized and proud achievements are entirely reliant on Mathematics: Planes flying seamlessly through the air, high availability of complex medicines, even the computer you are using now.
- Mathematics is a reasonably neutral subject and so it is easily combined with other courses.
- If you look at our subject league table for Mathematics, you can see that Graduate Prospects are relatively high, especially if you earn a place at one of the top 10 institutions for Mathematics, they average a score of 82%.
- A mathematician's skill set is not exhausted once they move out of the realm of the numerical. The facets of a student which are developed during a Mathematics degree are easily extrapolated to other situations and areas.
- People with Mathematics degrees and other qualifications can go into: accounting, medicine, engineering, forensic pathology, finance, business, consultancy, teaching, IT, games development, scientific research, programming, the civil service, design, construction and astrophysics to name a few... Just about everything!
- It's not surprising that Mathematics was the most popular A-level choice of 2013.
- Mathematics is excellent for any career giving the student a wide range of skills.
- Mathematics A-level is a must have for degrees in: physics, engineering, actuarial science, economics and, of course, Mathematics, although you may need to study a further Mathematics course as well to do this.

ADDITIONAL MATHEMATICS

AIMS

The syllabus is intended to prepare students adequately for AS Level H2 Mathematics and where a strong foundation in algebraic manipulation skills and mathematical reasoning skills are required.

The IGCSE Additional Mathematics syllabus assumes knowledge of IGCSE Mathematics.

The general aims of the mathematics syllabuses are to enable students to:

- Acquire the necessary mathematical concepts and skills for continuous learning in mathematics and related disciplines, and for applications to the real world.
- Develop the necessary process skills for the acquisition and application of mathematical concepts and skills.
- Develop the mathematical thinking and problem solving skills and apply these skills to formulate and solve problems.
- Recognize and use connections among mathematical ideas, and between mathematics and other disciplines.
- Develop positive attitudes towards mathematics.
- Make effective use of a variety of mathematical tools (including information and communication technology tools) in the learning and application of mathematics.
- Produce imaginative and creative work arising from mathematical ideas.

NATURE OF COURSE

Additional Mathematics candidates gain lifelong skills, including further development of mathematical concepts and principles. Candidates take two papers P1 and P2; both papers contain equal marks and weight age.

ASSESSMENT DETAILS

IGCSE 0606

Paper 1 Non-calculator	2 Hours	80 marks	50%
Paper 2 Calculator	2 Hours	80 marks	50%

ENRICHMENT

- Students are also encouraged to attend the after-school classes on the concerned topics.
- After-school classes are held regularly. Moreover, a part-time teacher has been specifically assigned to teach mathematics to the students of boarding houses.
- Regular meetings in Department to discuss class issues and problems
- The Harkness method, or Harkness discussion is a teaching and learning method involving students seated in a large, oval shape to discuss ideas in an encouraging, open-minded environment. It could help and enable students to share their ideas through an open discussion in the class.
- The Math Society also participated in various Math related competitions such as the ICAS Mathematics and Science competition hosted by Educational Assessment Australia.
- The Mathematics Society also participated in the Pakistan Mathematics Contest, the National Mathematics contest and the prestigious International Kangaroo Mathematics Contest.

BEYOND IGCSE

A solid foundation for further study.

- AS /A level Mathematics requires knowledge of O-level Additional Mathematics or equivalent
- H2 Mathematics prepares students adequately for university courses including Mathematics, Physics and Engineering, where more Mathematics content is required.
- If you are not sure of what to study in the university, you should study and do well in IGCSE Additional Mathematics and A-level H2 Mathematics.

FURTHER MATHEMATICS

AIMS

The aims describe the purposes of a course based on this syllabus. The aims are to enable students to:

- further develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment.
- develop a greater understanding of mathematical principles and a further appreciation of mathematics as a logical and coherent subject.
- acquire a greater range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying
- further develop the ability to analyze problems logically
- recognize when and how a situation may be represented mathematically, identify and interpret relevant factors and select an appropriate mathematical method to solve the problem.
- use mathematics fluently as a means of communication with emphasis on the use of clear expression
- acquire the mathematical background necessary for further study in mathematics or related subjects.

ASSESSMENT DETAILS

Further Mathematics 9231

Paper 1 (AS)	2 Hour	75 marks	30%
Paper 2 (A2)	2 Hour	75 marks	30%
Paper 3 (AS)	2 Hour	50 marks	20%
Paper 4 (A2)	1 Hour 30 minutes	50 marks	20%

ENRICHMENT

- Students are also encouraged to attend the after-school classes on the concerned topics.
- After-school classes are held regularly. Moreover, a part-time teacher has been specifically assigned to teach Mathematics to the students of boarding houses.
- Regular meetings in Department to discuss class issues and problems.
- The Harkness method, or Harkness discussion is a teaching and learning method involving students seated in a large, oval shape to discuss ideas in an encouraging, open-minded environment. It could help andenable students to share their ideas through an open discussion in the class.
- The Math Society also participated in various math related competitions such as the ICAS Mathematics and Science competition hosted by the Educational Assessment Australia.
- The Mathematics Society also participated in the Pakistan Mathematics Contest, the National Mathematics Contest and the prestigious International Kangaroo Mathematics Contest.

BEYOND A LEVELS

Already mentioned under Mathematics



ENGLISH

ENGLISH LANGUAGE

ENGLISH LITERATURE

Head of Department: Samara Salahuddin

ENGLISH LANGUAGE

Cambridge IGCSE™ First Language English 0500

Content overview:

Cambridge IGCSE First Language English offers candidates the opportunity to respond with understanding to a rich array of reading texts during the course as a whole. Candidates will use these texts to inform and inspire their own writing, and write in a range of text types for different purposes and audiences.

AIMS

The aims describe the purposes of a course based on this syllabus. The aims are to enable students to:

- read a wide range of texts, fluently and with good understanding, enjoying and appreciating a variety of language.
- read critically, and use knowledge gained from wide reading to inform and improve their own writing
- write accurately and effectively, using Standard English appropriately.
- work with information and with ideas in language by developing skills of evaluation, analysis, use and inference.

All candidates take:

Paper 1

Duration

Reading

2 Hours

50%

80 marks

Structured and extended writing questions
Questions will be based on three reading texts
Externally assessed

and

Paper 2 Writing

Duration

Directed Writing and Composition

2 Hours

50%

80 marks

Extended writing question and composition task
Externally assessed. 50 marks

Reading:

Candidates will be assessed on their ability to:
demonstrate understanding of explicit meanings
demonstrate understanding of implicit meanings and attitudes
analyze, evaluate and develop facts, ideas and opinions, using appropriate support from the text
demonstrate understanding of how writers achieve effects and influence readers
select and use information for specific purposes.

Writing:

Candidates will be assessed on their ability to:
articulate experience and express what is thought, felt and imagined
organise and structure ideas and opinions for deliberate effect
use a range of vocabulary and sentence structures appropriate to context
use register appropriate to context
make accurate use of spelling, punctuation and grammar

ENGLISH LANGUAGE

A LEVEL ENGLISH LANGUAGE 9093

Cambridge International AS & A Level English Language develops a set of transferable skills. These include critical analysis; constructing arguments; presenting knowledge and understanding; and writing English in a balanced, articulate and fluent manner. Learners can apply these skills across a wide range of subjects and real-world situations. These skills will also equip them well for progression to higher education or directly into employment.

AIMS

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- develop a critical and informed response to texts in a range of forms, styles and contexts, produced for a variety of audiences.
- communicate effectively, creatively, accurately and appropriately in their writing.
- develop the interdependent skills of reading, analysis and research.
- develop an appreciation of concepts and techniques in the study of English language.
- build a firm foundation for further study of language and linguistics.

For Cambridge International AS' & A Level English Language, candidates:
Cambridge International AS Level candidates take:

Paper 1 Reading	Duration	AS Level	A Level
Candidates answer two questions: Question 1, and Question 2 in Section B Questions carry equal marks. Externally assessed. 50 marks	2 Hours 15 minutes	50%	25%

and

Paper 2 Writing	Duration	AS Level	A Level
Candidates answer two questions: one compulsory from Section A and one from Section B. Questions carry equal marks. Externally assessed. 50 marks	2 Hours	50%	25%

Cambridge International A Level candidates take all FOUR papers and weighting becomes 25% for each paper:

Paper 3 Text Analysis	Duration	A Level
Candidates answer two compulsory questions. Question 1 in Section A, and Question 2 in Section B Questions carry equal marks. Externally assessed. 50 marks	2 Hours 15 minutes	25%.

and

Paper 4 Language Topics	Duration	A Level
Candidates answer two compulsory questions Question 1 in Section A, and Question 2 in Section B Questions carry equal marks. Externally assessed. 50 marks	2 Hours 15 minutes	25%.

BEYOND A LEVEL

Candidates gain skills for life, including the ability to appreciate how different texts are shaped by their language and style, skills in creating their own imaginative and persuasive writing for different purposes and audiences, skills in researching, selecting and shaping information from different sources, and the ability to analyze and compare written and spoken texts in close detail.

Depending on local university entrance requirements, students may be able to progress directly to university courses in English Language or some other subjects. It is also suitable as part of a course of general education. These are highly transferable skills and may help learners in other subject areas, as well as equipping them for higher education or employment.

ENGLISH LITERATURE

Cambridge IGCSE™ Literature in English 0475

Content overview:

The syllabus enables learners to read, interpret and evaluate texts through the study of literature in English. Learners develop an understanding of literal meaning, relevant contexts and of the deeper themes or attitudes that may be expressed. Through their studies, they learn to recognize and appreciate the ways in which writers use English to achieve a range of effects, and will be able to present an informed, personal response to the material they have studied.

The syllabus also encourages the exploration of wider and universal issues, promoting learners' better understanding of themselves and of the world around them.

AIMS

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- enjoy the experience of reading literature
- understand and respond to literary texts in different forms and from different periods and cultures
- communicate an informed personal response appropriately and effectively.
- appreciate different ways in which writers achieve their effects.
- experience literature's contribution to aesthetic, imaginative and intellectual growth.
- explore the contribution of literature to an understanding of areas of human concern.

ASSESSMENT DETAIL

All candidates take Paper 1 Poetry and Prose, and Paper 2 Drama.

Paper 1
1 Hour 30 minutes
Poetry and Prose 50%
50 marks
Two questions on two texts: one poetry and one prose
Externally assessed

Paper 2
1 Hour 30 minutes
Drama 50%
50 marks
Two questions on two texts
Externally assessed

Cambridge International AS & A Level Literature in English 9695

AIMS

The aims are to enable students to:

- enjoy the experience of reading literature.
- develop an appreciation of and an informed personal response to literature in English in a range of texts in different forms, and from different periods and cultures.
- communicate effectively, accurately and appropriately in written form.
- develop the interdependent skills of reading, analysis and communication.
- analyze and evaluate the methods writers use in creating meaning and effects.
- encourage wider reading and an understanding of how it may contribute to personal development.
- build a firm foundation for further study of literature.

Assessment Details

Paper 1 Drama and Poetry 2 Hours 50 marks Candidates answer two questions: one question from Section A: Drama and one question from Section B: Poetry. Externally assessed 25% of the A Level	Paper 3 Shakespeare and Drama 2 Hours 50 marks Candidates answer two questions: one question from Section A: Shakespeare and one question from Section B: Drama. Externally assessed 25% of the A Level
Paper 2 Prose and Unseen 2 Hours 50 marks Candidates answer two questions: one question from Section A: Prose and one question from Section B: Unseen. Externally assessed 25% of the A Level	Paper 4 Pre and Post-1900 Poetry and Prose 2 Hours 50 marks Candidates answer two questions: one question from Section A: Pre-1900 Poetry and Prose, and one question from Section B: Post-1900 Poetry and Prose. Candidates respond to both a poetry and a prose text. Externally assessed 25% of the A Level

Beyond A Level/ University Education

Literature is both intensely personal as well as a communal experience. It helps a student examine how words, sentences, characters, plot-lines and topics reveal who we are as humans. Humanity is a complicated thing, and requires an infinite amount of words to describe and analyze. That's the joy of studying literature; there is always a new reality to discover. Studying English literature entails more than just being able to read and write well. It helps a student to understand and interpret the importance that various forms of literature have had to societies of the past and present. Being able to express opinions is another important aspect, as is starting a piece of literature with an open mind. These

habits are also important when facing everyday life, not just literature. The chance to read and write is something that everyone should be able to experience. Literature in all forms is everywhere in today's society, and with this idea, it is clear just how important it is. Whether it is studied in the classroom, read for pleasure or purpose, literature is a central part of most lives. It offers not only a chance to enlighten a person, but it also gives the chance to broaden one's horizons and perspectives.

HUMANITIES

ACCOUNTING

Head of Department: Shokat Ali

BUSINESS STUDIES

Head of Department: Maham Hammad

ECONOMICS

Head of Department: Shahid Saghir

ISLAMIYAT

Head of Department: Afzaal Ahmad Tarar

PAKISTAN STUDIES INTERNATIONAL HISTORY

Head of Department: Tariq Yasin

ACCOUNTING

AIMS

Accountants are an essential need of any business organization. They not only keep a record of the sales and purchases of a business but also help in identifying any fraudulent activities. The subject accounting develops an understanding of how to plan, budget and manage financial resources. It enables us to critically apply, analyze and evaluate accounting policies and practices. It provides an understanding of how to use accounting information to make viable business decisions.

NATURE OF COURSE

The IGCSE syllabus is divided into the following main contents. These contents are further divided into many sub-topics.

1. Basic principles
2. Accounting procedures
3. Financial statements
4. Preparation of financial statements
5. Advanced principles

The A level accounting syllabus is divided into two main topics

1. Financial Accounting
2. Cost and Management Accounting

The course is further divided into AS Level and A Level topics

ASSESSMENT DETAILS

IGCSE Accounting (0452)

For the Cambridge IGCSE in Accounting, candidates take two papers:

• Paper 1: Multiple Choice	1 Hour 15 Minutes	35 Marks	30%
• Paper 2: Structured written paper	1 Hour 45 Minutes	100 Marks	70%

A/AS Level Accounting (9706)

Cambridge A Level Accounting

- Paper 1: Multiple Choice 1 hour 30 marks - 30 multiple-choice questions
Questions are based on sections 1 and 2 of the subject content.
- Paper 2: 1 hour 45 minutes 90 marks
Four structured questions Questions are based on sections 1 and 2 of the subject content.
- Paper 3: Financial Accounting 1 hour 30 minutes 75 marks
Three structured questions Questions are based on section 3 of the subject content; knowledge of material from the AS Level subject content is assumed.
- Paper 4: Cost and Management Accounting 1 hour 50 marks Two structured questions Questions are based on section 4 of the subject content; knowledge of material from the AS Level subject content is assumed.

ENRICHMENT OPPORTUNITIES

During the course, Aitchison college encourages the use of Harkness technique in classes which helps the students discuss/speak up ideas in an encouraging, open-minded environment with minimum teacher intervention. The College provides weekly help for the students who are ready to go the extra mile. Each department is available on alternate weekends for the extra classes.

The students who need individual attention are catered to by providing one to one coaching on alternate weekends. Occasionally guest speakers are invited either to talk on topics of interest for the students or to give the students a step by step guide line towards a particular career.

BEYOND A LEVELS

A variety of finance qualifications are available to those hoping to study accounting, which can be confusing when searching for job opportunities. However, most students study general degrees at Bachelors level before potentially choosing their specialism as a postgraduate student.

Although helpful, it's not essential to have an accounting degree in order to begin a career in accountancy. A variety of other qualification options are available to graduates of other subjects. Alternatives to accounting degrees can often be studied while taking accounting internships.

The most popular accounting qualifications include:
AAT accounting courses - the Association of Accounting Technicians (AAT) is made up of three qualifications across three levels, which combine industry knowledge and practical work skills.

ACCA qualifications - the Association of Chartered Certified Accountants (ACCA) hosts two levels of qualifications; Fundamentals and Professionals. Their modules cover a variety of topics from corporate and business law to audit and assurance.

ICAEW chartered accountant status - also referred to as the ACA, this qualification consists of three to five years of practical work experience and the completion of 13 modules. Many accountancy firms will accept qualifications from any board, but if you have a definite career path in mind, it's worth taking a look into the preferred qualifications of that specialism.

BUSINESS STUDIES

AIMS

The syllabus aims to enable students to understand and appreciate the nature and scope of business. There is a vital role of business in society and internationally.

- Develop critical understanding of organizations, the markets they serve and the process of adding value.
- Evaluate business behavior from the perspective of a range of stakeholders including owner/ shareholder, manager, employee, customer, supplier, lender and government.
- Develop an awareness of the political, economic, social, technological, legal, environmental and ethical issues associated with business activity.
- Develop quantitative, problem-solving, decision making and communication skills.

NATURE OF COURSE

The A level syllabus is divided into six main contents

1. Business and its environment
2. People in organizations
3. Marketing
4. Operations and project management
5. Finance and accounting
6. Strategic management

These contents are further divided into AS Level and A Level topics Cambridge IGCSE Business Studies syllabus is divided into six main contents:

1. Understanding business activity
2. People in business
3. Marketing
4. Operations management
5. Financial information and decisions
6. External influences on business activity

ASSESSMENT DETAILS

Cambridge IGCSE Business Studies (0450)

CAIE Business A level (9609)

For the Cambridge IGCSE Business Studies, candidates take two papers of 1 Hour and 30 minutes each:

- | | | |
|---|----------|-----|
| • Paper 1: Short answers and structured data responses. | 80 marks | 50% |
| • Paper 2: A case study with 4 questions. | 80 marks | 50% |

For the Cambridge AS Level in Business, candidates take two papers:

- | | | |
|---|----------|-----|
| • Paper 1: Business Concepts 1, 1 Hour 15 minutes | 40 marks | 20% |
| • Paper 2: Business Concepts 2, 1 Hour 30 minutes | 60 marks | 30% |

For the Cambridge A Level in Business, candidates take two papers of A Level Business

- | | | |
|--|----------|-----|
| • Paper 3: Business Decision-Making, 1 Hour 45 minutes | 60 marks | 30% |
| Paper 4: Business Strategy, 1 Hour 15 minutes | 40 marks | 20% |

ENRICHMENT OPPORTUNITIES

The College provides weekly help for the students who are ready to go the extra mile. Each department is available on alternate weekends for the extra classes. During the course, Aitchison college encourages the use of Harkness technique in classes which helps the students discuss and come up with ideas in an encouraging open-minded environment with minimum teacher intervention.

The students who need individual attention are catered to by providing one to one coaching. Occasionally guest speakers are invited either to talk on topics of interest for the students or to give the students a step by step guide line towards a particular career. Educational field trips are also arranged for the students to broaden their vision.

BEYOND A LEVEL

The study of Cambridge International AS and A Level Business allows learners to take the first step towards a career in private or public organizations or progress with confidence to a degree in business and management related subjects.

As with any degree, there are several things to consider. Two of the most important considerations about seeking a business degree are your interests and your goals. While these two things are important considerations for just about any degree, their importance is heightened when it comes to a degree in business due to its wide applicability. In other words, the business field is so broad that you'll need some kind of direction to avoid getting lost. Most business careers can be management, analysis, personal finance, information technology (IT), and human resources.

ECONOMICS

AIMS

Through the Cambridge International IGCSE Economics syllabus, learners study how to explain and analyze economic issues and evaluate economic information.

- The candidates gain lifelong skills of understanding of economic theory, terminology and principles.
- The ability to apply the tools of economic analysis.
- The ability to distinguish between facts and value judgments in economic issues.
- It develops an understanding of, and an ability to use, basic economic numeracy and literacy.
- Economics is valuable not only for the topics it studies, but also for its methods of analysis.

The processes economists use in constructing models, analyzing arguments, choosing and testing empirical predictions against available evidence develop several important skills. It develops an understanding of the factual knowledge of economics and the habit of reading critically to gain information about the changing economy we live in. It also appreciates the methods of study used by the economist, and of the most effective ways economic data may be analyzed, correlated, discussed and presented.

NATURE OF COURSE

The IGCSE syllabus content is divided into eight main topics. These topics are further divided into many sub-topics:

1. Basic economic problem: choice and the allocation of resources
2. The allocation of resources: how the market works; market failure
3. The individual as producer, consumer and borrower
4. The private firm as producer and employer
5. Role of government in economy
6. Economic indicators
7. Developed and developing economies: trends in production, population and living standards
8. International aspects Economics graduates develop their general literacy, communication and numeracy skills, as well as skills of abstraction, logical deduction and critical thinking. Skills of discrimination, flexibility and organizational ability are also enhanced. Economics combines elements of both science and art.

The AS and A Level syllabus content is divided into five topic areas:

1. Basic economic ideas and resource allocation
2. The price system and the micro economy
3. Government microeconomic intervention
4. The macro economy
5. Government macroeconomic intervention

ASSESSMENT DETAILS

IGCSE Economics (0455)

For the Cambridge IGCSE in Economics, candidates take two papers each:

- **Paper 1: Multiple Choice of 45 minutes**
- **Paper 2: Structured questions of 2 Hours 15 minutes**

A Levels Economics (9708)

For the Cambridge AS Level in Economics, candidates take two papers:

- **Paper 1: Multiple Choice of 1 Hour**
- **Paper 2: Data Response and Essay of 2 Hour**

For the Cambridge A Level in Economics, candidates take two papers of AS Level Economics and two additional papers for A Level Economics:

- **Paper 3: Multiple Choice of 1 Hour 15 minutes**
- **Paper 4: Data Response and Essay of 2 Hours**

Paper 3 and Paper 4 test the additional content for the A Level, but also requires a knowledge and understanding of the AS Level content

ENRICHMENT OPPORTUNITIES

Students opting for this course shall be provided with various enrichment opportunities. These activities are carefully designed so that each student is given an opportunity to make best use of this course.

During the course Aitchison college encourages the use of Harkness technique in classes which helps the students discuss/speak up ideas in an encouraging open-minded environment with minimum teacher intervention.

The College provides weekly help for the students who are ready to go the extra mile. Each department is available on alternate weekends for the extra classes. The students who need individual attention are catered to by providing one to one coaching on alternate week days.

Guest speakers, mostly Alumni are invited to deliver motivational lectures. Students are encouraged to participate both in internal and external competitions and are judged on the basis of their ability to apply concepts learned to the real life situations. Field trips are an essential component of this course. These trips help to familiarise our students with the actual working of an economy.

BEYOND A-LEVELS

Economists try to develop analytical mathematical models which seek to explain economic behavior in a way that can be theoretically proved. Economics graduates develop their general literacy, communication and numeracy skills, as well as skills of abstraction (balancing simplification against

relevance), logical deduction (including precise use of language, for example in relation to cause and effect, necessity and sufficiency) and critical thinking. Economics relates to everything.

You do not necessarily have to choose economics just because you want to do it at university (in fact, it is often the other way around). Economics is still a useful subject to do even if you end up choosing Social Sciences, Management or Commerce. This is because economics relates to almost all aspects of our life. One will have to agree with this statement as most government policies will have some economic basis in them. Thus, knowing some basic economics will really help you understand the way politics work.

Similarly, the foundation of economics relates to many scientific principles and many historical and socio-political events can be better analyzed if put in the right economic context. So, economics make a supportive match even if you choose natural sciences.

Thus, Economics is definitely the perfect subject to do at school. It will prepare you very well for the academic challenges you will encounter when you get to university. The study of Cambridge International AS & A Level Economics allows learners to explore concepts and theories which can be applied to the way that modern economies work. Cambridge learners develop the ability to explain, evaluate and analyze economic issues and arguments. They gain lifelong skills and a solid foundation for further study.

ISLAMIYAT

AIMS

The aims of the syllabus are to enable candidates to acquire knowledge of the major sources of Islam, its main beliefs and its early history and develop an enquiring approach to the study of Islam. The purpose of this course is to identify and explore the religious, historical and moral questions raised in the material they study.

NATURE OF COURSE

Cambridge IGCSE are established qualifications that keep pace with educational developments and trends. The Cambridge IGCSE curriculum places emphasis on broad and balanced study across a wide range of subject areas. The curriculum is structured so that students attain both practical skills and theoretical knowledge.

Cambridge IGCSE Islamiyat is accepted by universities and employers as proof of ability and understanding. The Cambridge IGCSE Islamiyat syllabus encourages students to develop lifelong skills and knowledge, including:

- An understanding of the importance of the major beliefs of Islam and of the early history of the Islamic community
- Evaluation skills to understand how these beliefs impact on the daily lives and thoughts of Muslims around the world
- Familiarity with the Qur'an and Hadith in Arabic.

NATURE OF SYLLABUS

Paper 1

1. Major themes of the Qur'an
2. The history and importance of the Qur'an
3. The life and importance of the Prophet Muhammad (pbuh)
4. The first Islamic community

Paper 2

1. Major teachings in the Hadiths of the Prophet
2. The history and importance of the Hadiths
3. The period of rule of the Rightly Guided Caliphs and their importance as leaders
4. The Articles of Faith and the Pillars of Islam

ASSESSMENT DETAILS IGCSE (0493)

All candidates take two written papers and answer in English. Both papers must be taken for the candidate to be awarded a grade.

Paper 1

Duration: 1 ½ Hours

Total marks = 50

Paper 1 contains 5 questions of which candidates must answer **Question 1, Question 2** and **two** others.

1. Major themes of the Qur'an: Three passages will be set from the list in Appendix 1 (of IGCSE Islamiyat Guide), of which candidates may choose any **two**. [8 marks]
2. The history and importance of the Qur'an: This question is usually set in more than one part, and requires an essay length answer. [14 marks]
3. The life and importance of the Prophet Muhammad (pbuh): **One or two questions** are set, usually in more than one part, requiring essay length answers. [14 marks]
4. The first Islamic community: **One or two questions** are set, usually in more than one part, requiring essay length answers. [14 marks]

Paper 2

Duration: 1 ½ Hours

Total marks = 50

Paper 2 contains 5 questions of which candidates must answer **Question 1, Question 2** and **two** others.

1. Major teachings of the Hadiths of the Prophet: **Four** passages are set from the list in Appendix 2 (of IGCSE Islamiyat Guide), of which candidates may choose any **two**. [8 marks]
2. The history and importance of the Hadiths: This question is usually set in more than one part, and requires an essay length answer. [14 marks]
3. The period of rule of the Rightly Guided Caliphs and their importance as leaders; **One or two questions** are set, usually in more than one part, requiring essay length answers. [14 marks]
4. The Articles of Faith and the Pillars of Islam: **One or two questions** are set, usually in more than one part, requiring essay length answers. [14 marks]

ENRICHMENT OPPORTUNITIES

The college facilitates the students with the enrichment opportunities in the form of Harkness, extra classes (weekly help), tutorials, guest speakers for the better understanding of the subject. Moreover national/ international events are also organized for the students.

RECOMMENDED BOOKS

- Islamiyat By Thomas, D and Draper, M
- O Level Islamiyat textbook
By Hammad Ibn Nishat

PAKISTAN STUDIES

AIMS

The Cambridge IGCSE Pakistan Studies syllabus is divided into two:

The History and Culture of Pakistan. This part of the syllabus aims to provide insights into the origins, creation and development of Pakistan, and encourages discussion of issues facing Pakistan. It aims to enable candidates to acquire knowledge and understanding of the human past, investigates historical events, changes, people and issues. It develops understanding of how the past has been represented and interpreted and also develops an understanding of the nature and use of historical evidence. It organizes and communicates knowledge and understanding of history; develops and stimulates an interest and enthusiasm for history and acquire a basis for further historical study; develops an understanding of the nature of cause and consequence, continuity and change and similarity and difference.

The Environment of Pakistan. This part of the syllabus aims to give candidates a knowledge and understanding of the importance to the people and country of Pakistan of its physical characteristics, human and natural resources, economic development, population characteristics, and of their inter-relationships.

NATURE OF COURSE

Outline. Syllabus content at a glance

The History and Culture of Pakistan

Cultural and historical background to the Pakistan Movement

The emergence of Pakistan 1906–47

Nationhood 1947–99

The Environment of Pakistan

The land of Pakistan, Climate, Water Resources, Forests, Mineral Resources, Fishing, Power Resources, Agricultural development, Industrial development, Trade, Transport and communications, Population.

ASSESSMENT DETAILS IGCSE

IGCSE Pakistan Studies (0448)

For the Cambridge IGCSE in Pakistan Studies, candidates take two papers of 1 Hour 30 minutes each:

Paper 1: The History and Culture of Pakistan

Paper 2: The Environment of Pakistan

ENRICHMENT OPPORTUNITIES

The College provides weekly help for the students who are ready to go the extra mile. Each department is available on alternate weekends for the extra classes. During the course, we do encourage the use of Harkness technique, peer learning and student centered learning in classes which help the students discuss/speak up ideas in an encouraging open-minded environment with minimum teacher intervention. The students who need individual attention are catered to

by providing one to one coaching on alternate week days. Occasionally guest speakers are invited either to talk on topics of interest for the students or to give the students a step by step guide line towards a particular career. Educational field trips are also arranged for the students to broaden their vision. Some distinguished Co-curricular Activities are: Pakistan Studies and Archive Society, Geography Competition & Historical/ Industrial field tours.

CAMBRIDGE INTERNATIONAL HISTORY

AIMS

The syllabus aims to develop:

- An interest in the past and an appreciation of human endeavour.
- A greater knowledge and understanding of historical periods or themes.
- A greater awareness of historical concepts such as cause and effect, similarity and difference, and change and continuity.
- An appreciation of the nature and diversity of historical sources available, and the methods used by historians.
- An exploration of a variety of approaches to different aspects of history and different interpretations of particular historical issues.
- The ability to think independently and make informed judgments on issues.
- An empathy with people living in different places and at different times.
- A firm foundation for further study of History.

Cambridge IGCSE History 0470

All candidates study all the Core Content in either:

Option A

The nineteenth century: the development of modern nation states, 1848–1914

The content focuses on the following Key Questions:

- Were the Revolutions of 1848 important?
- How was Italy unified?
- How was Germany unified?
- Why was there a civil war in the United States and what were its results?
- Why, and with what effects, did Europeans expand their overseas empires in the nineteenth century?
- What caused the First World War?

or:

Option B

The twentieth century: international relations since 1919

The content focuses on the following Key Questions:

- Were the peace treaties of 1919–23 fair?
- To what extent was the League of Nations a success?
- Why had international peace collapsed by 1939?
- Who was to blame for the Cold War?
- How effectively did the United States contain the spread of Communism?
- How secure was the USSR's control over Eastern Europe, 1948–c.1989?
- Why did events in the Gulf matter, c.1970–2000?

In addition, all candidates must also study at least one of the following Depth Studies:

- The First World War, 1914–18
- Germany, 1918–45
- Russia, 1905–41
- The United States, 1919–41
- China, c.1930–c.1990
- South Africa, c.1940–c.1994
- Israelis and Palestinians since 1945

Cambridge International History

IGCSE 0470			
Assessment Details			
All candidates take either:		All candidates take either:	
Paper 1	2 Hours	Paper 3	1 Hours
Written paper	40%	Coursework	27%
60 marks		40 marks	
Candidates answer two questions from Section A (Core Content) and one question from Section B (Depth Studies)		Candidates produce one piece of extended writing based on a Depth Study from the syllabus or a Depth Study devised by the Centre	
All questions are in the form of structured essays, split into three parts: (a), (b) and (c)		Internally assessed/externally moderated	
Externally assessed			
and		or	
Paper 2	2 Hours	Paper 4	1 Hour
Written paper	33%	Alternative to Coursework	27%
50 marks		Written paper	
Candidates answer six questions on one prescribed topic taken from the Core Content. There is a range of source material relating to each prescribed topic. The prescribed topic changes in each examination session – see Section 4		40 marks	
Externally assessed		Candidates answer one question on a Depth Study	
		Externally assessed	

ASSESSMENT AT A GLANCE			
A Level 9489			
Paper 1	1 Hour 15 minutes	20%	
Paper 2	1 Hour 45 minutes	30%	
Paper 3	1 Hour 15 minutes	20%	
Paper 4	1 Hour 45 minutes	30%	

Enrichment Opportunities

The College provides weekly help for the students who are ready to go the extra mile. Each department is available on alternate weekends for the extra classes. During the course Aitchison college encourages the use of Harkness technique in classes which helps the students discuss/speak up ideas in an encouraging open-minded environment with minimum teacher intervention. The students who need individual attention are catered to by providing one to one

coaching on alternate week days. Occasionally guest speakers are invited either to talk on topics of interest for the students or to give the students a step by step guide line towards a particular career. Educational field trips are also arranged for the students to broaden their vision. Some distinguished Co-curricular Activities are; Pakistan Studies and Archive Society, Geography Competition & Historical/Industrial field tours.

LANGUAGES

GERMAN

Head of Department: Andleeb Zahra Syed

FRENCH

Head of Department: Mehar Mansoor

URDU

Head of Department: Rubab Baqir

GERMAN

AIMS

German has the largest number of native speakers in the European Union and it is among the ten most commonly spoken languages in the world. The aim of German IGCSE and AS-Level syllabus is to enable students to communicate confidently and clearly in the target language and develop insights into the culture and civilization of the countries where the language is spoken. It encourages positive attitudes to language learning and a sympathetic approach to other cultures and civilizations. It fully supports intellectual and personal development by promoting learning and social skills to form a sound base of skills, language and attitudes required for further study, work and leisure and provide enjoyment and intellectual stimulation.

GERMAN AS-LEVEL – 8683

This course is divided into 3 components, i.e. Speaking, Reading and Essay Writing.

All textual material used in the examinations will be drawn from the topic areas below, with reference to the countries where German language is spoken.

- Human relationships
- Young people
- The media
- Philosophy and belief
- Equality of opportunity
- Free time activities
- Cultural life/heritage
- Social and economic development
- Conservation
- Contemporary aspects of the country or countries where the language is spoken
- Family
- Patterns of daily life
- Food and drink
- Health and fitness
- Employment and unemployment
- Travel and tourism
- War and peace
- Scientific and medical advances
- Pollution
- Generation gap
- Urban and rural life
- Law and order
- Work and leisure
- Sport
- Education
- Environment
- Technological innovation

ASSESSMENT DETAILS

GERMAN IGCSE – 0525

Paper 1:	approximately 50 minutes listening,	25% weighting,	40 marks
Paper 2:	1 Hour Reading	25% weighting,	45 marks
Paper 3:	approximately 10 minutes speaking,	25% weighting,	40 marks
Paper 4:	1 Hour Writing,	25% weighting,	45 marks

GERMAN AS-LEVEL – 8683

Paper 1:	approximately 20 minutes Speaking	29% weighting,	100 marks
Paper 2:	1 Hour 45 minutes Reading and Writing,	50% weighting,	70 marks
Paper 3:	1 Hour 30 minutes Essay,	21% weighting,	40 marks
For the year 2024 the selected topics for the essay are: Urban and Rural Life-Food and Drink-Sport-Cultural Life/Heritage-War and Life			

ENRICHMENT OPPORTUNITIES

- a. After School help
- b. Co- Curricular Activities:
 - German Essay writing competition
 - German Poetry Recitation competition
 - German Interpretive Reading competition
 - German Video making competition
 - German Spelling Bee competition
- c. Participation in the Inter-school linguistics fest
- d. Several events organized by the Goethe-Institute
- e. Summer camps in Germany

BEYOND A-LEVELS

Cambridge German language is accepted by universities and employers as proof of linguistic ability and understanding.

Opportunities to study/work in Germany: It is one country which imparts education even to International students free of cost in National Universities. Everyone has an equal opportunity to get admission in the top universities of Germany, according to high academic achievement. Besides that students can get Resident Permit for one year after completion of studies to find job or new study program in Germany. Germany awards a generous number of scholarships and other support to study in Germany. The German Academic Exchange Service (DAAD) provides scholarships in Germany for international students for a range of postgraduate courses at German Universities which aim at providing academically educated young professionals from developing countries with further specialized studies. Students can get detailed information on their website: <https://www.daad.de/de/>

The global career: Knowledge of German increases your job opportunities with German and foreign companies in your own country and abroad. Proficiency in German helps you to function productively for an employer with global business connections.

Business: Knowing the language of your German business partners improves your relations and therefore your chances for effective communication and success.

Science and Research: German is the second most commonly used scientific language. Germany is the third largest contributor to research and development and offers research fellowships to scientist from abroad.

Communication: Developments in media, information and communication technology require multilingual communicators. A wide range of important websites are in German and worldwide, Germany is ranked number 5 in terms of annual publication of new books. Knowledge of German therefore offers you extended access to information.

Cultural understanding: Learning German provides you with an insight into the way of life, and the hopes and dreams of people in German speaking countries, broadening your horizon.

Travel: Make the most of your travels not only in German-speaking countries, but in many other European countries where German is widely spoken, especially in Eastern Europe.

Enjoyment of literature, music, art and philosophy: German is the language of Goethe, Kafka, Mozart, Bach and Beethoven. Indulge in reading and/or listening to their works in their original language.

FRENCH

AIMS

Learning a language enables a person to:

- Improve your decision making skills
- Boost their brain power
- Transform travel experiences
- Increase chances of employment
- Study or live overseas
- Become more open-minded
- Discover new cultures and understand better one's own
- Meet new people and develop life-long friendships
- Discover one's own language
- Develop confidence

French is:

1. A world language
2. A language for the job market
3. The language of culture
4. A language for travel
5. A language for higher education
6. The other language of international relations
7. A language that opens up the world
8. A language that is fun to learn
9. A language for learning other languages
10. The language of love and reason

Cambridge IGCSE French - Foreign Language (0520)

This course is mainly divided into four components, that is Listening, Reading, Writing and Speaking. The topic areas are: Everyday Activities - Personal & Social Life - The World Us - The World of Work - The International World

ASSESSMENT DETAILS

FRENCH IGCSE – 0520

Paper 1:	approximately 50 minutes listening,	25% weighting,	40 marks
Paper 2:	1 Hour Reading	25% weighting,	45 marks
Paper 3:	approximately 10 minutes speaking,	25% weighting,	40 marks
Paper 4:	1 Hour Writing,	25% weighting,	45 marks

FRENCH A-LEVEL – 9898

Paper 1:	Reading, 1 Hour 30 minutes	33% weighting,	40 marks
Paper 2:	Writing, 2 Hours	33% weighting,	40 marks
Paper 3:	Literature, 2 Hours	33% weighting,	40 marks

All textual material used in the examinations will be drawn from the topic areas below, with reference to the countries where French language is spoken.

- Culture
- Health and well-being
- Education and future plans
- Community and society
- Our responsibility for the planet
- Science and technology

Co-curricular activities

- Essay writing competitions
- Poetry Recitation competitions
- Interpretative Reading competitions
- Spelling Bee competitions
- Participation in Inter-school Language Festivals that comprise drama, singing, rhetoric, culture, etc.

Beyond A-Level

French may be of direct use in university if the student chose it as a major or a minor subject. He may attempt the higher levels: C1 and C2 (expertise). If the student chooses to study in a French-speaking country, French will come handy. In other cases, French is the second most used language in the world and will be a support in studies and research.

URDU (O LEVEL)

AIMS

Urdu is our national language and it is important that we develop a love for Urdu in our students. We believe that having a strong hold over our language will naturally promote patriotism and feeling of goodwill for the country. This First Language syllabus develops learner's ability to communicate clearly, accurately and effectively. They learn how to employ a wide-ranging vocabulary, use correct grammar, spelling and punctuation, and develop a personal style and an awareness of the audience being addressed.

NATURE OF COURSE

This Course is mainly divided into Classical and Modern Literature. Outline of this will be further provided during in the class and will be related to Listing, Writing, and Speaking. This course is divided into four Topics. The division of topics and marks allocation is given below;

- a. **Comprehension** (25 Marks)
- b. **Essay** (25 Marks)
- c. **Prose and Poetry** (30 Marks)

Ghazlein, Nazmein, Uswah Husnah, Lahore Ka Geographia, Overcoat, Conductor, Dastak, Ur Ann Gharmai Murgiyoooh ka, Kurtaba Ka Kazi, Qader-e-Ayaz

- d. **Unseen paragraph** (20 Marks)

In this part the students are given a selection of unseen texts and asked to write about them

ASSESSMENT DETAILS

O Level Urdu - FIRST LANGUAGE (3247)

For the Cambridge O Level in Urdu, candidates take two papers of 1 Hour 30 minutes each:

- Paper 1: Essay Writing and comprehension 50 Marks
- Paper 2: Poetry, prose and Creative writing (Text based) 50 Marks

ENRICHMENT OPPORTUNITIES/ SUPPLEMENTATION

Harkness

During the course Aitchison college encourages the use of Harkness technique in classes which helps the students discuss/speak up ideas in an encouraging open-minded environment with minimum teacher intervention.

Extra Classes

The College provides weekly help for the students who are ready to go the extra mile. Each department is available on alternate weekends for the extra classes.

Co- Curricular Activities

- o Urdu Essay Writing competition
- o Urdu Hand Writing competition
- o Inter House Urdu declamation
- o Inter House Urdu Poetry Recitation competition
- o Hali challenge cup (Best Urdu Speaker)
- o Annual Urdu Drama
- o ACLLF

URDU (IGCSE)

AIMS

Cambridge IGCSE Urdu as a Second Language is designed for learners who already have a working knowledge of the language and who want to consolidate their understanding to progress their education or career. Through their studies, learners gain an understanding of how to use Urdu effectively in the type of situations, and Urdu-speaking environments, they will encounter in their daily lives.

The syllabus focuses on the linked language skills of reading, writing, listening and speaking. Through their study of Cambridge IGCSE Urdu as a Second Language, learners can achieve a level of practical communication ideal for everyday use, which can also form the basis for further, more in-depth language study.

NATURE OF COURSE

Learners studying the syllabus are often studying the language in order to promote their educational or employment prospects. They gain an understanding of a wide range of social registers and styles, and learn to communicate appropriately. The topics selected relate to the interests and needs of the learners in using Urdu as a Second Language, e.g. education, the world of work, current affairs, health and welfare, travel, school affairs.

ASSESSMENT DETAILS

IGCSE Urdu - SECOND LANGUAGE (0539)

For the Cambridge IGCSE in Urdu, candidates take two components:

- | | | |
|--------------------------------|---------------|------|
| • Paper 1: Reading and writing | 2 Hours | 67 % |
| • Paper 2: Listening | 35-45 minutes | 33% |

ART & DESIGN

Head of Department: Sara Ahmer

ART & DESIGN

AIMS

Cambridge IGCSE Art & Design (0400) is typically for learners aged 14 to 16 years. Cambridge International AS & A Level Art & Design (9479) is typically for learners aged 16 to 18 years. Cambridge aims to enable students to develop an ability to record from direct observation and personal experience and to identify and solve problems in a visual form.

A course of study in Art and Design should actively seek to develop the following abilities and qualities:

- Creativity, visual awareness, critical and cultural understanding
- An imaginative, creative and personal response
- Confidence, enthusiasm and a sense of achievement in the practice of art and design
- Growing independence in the refinement and development of ideas and personal outcomes
- Engagement and experimentation with a range of media, materials and techniques, including new media and technologies, where appropriate

- Experience of working in relevant frameworks and exploration of manipulative skills necessary to form, compose and communicate in two and/or three dimensions
- A working vocabulary relevant to the subject and an interest in, and a critical awareness of, other practitioners, environments and cultures
- Investigative, analytical, experimental, interpretative, practical, technical and expressive skills which aid effective and independent learning.

NATURE OF COURSE

Aitchison College offers Cambridge IGCSE Art & Design (0400) and Cambridge International AS & A Level Art & Design (9479).

The broad areas of study are:

- painting and related media
- photography, digital and lens-based media
- graphic communication
- three dimensional studies (architecture)
- textile design.

Assessment Details	
CAIE Examination Cambridge IGCSE (0400) CAIE Examination (9479)	
For Cambridge IGCSE in Art & Design, all candidates take two components: Component 1 and Component 2	
Components	Weighting
Component 1: Coursework Candidates research, develop and realise a project from one area of study in the subject content from a theme set by the teacher. There are two parts to the coursework: – a portfolio and – a final outcome. Externally assessed	50%
Component 2: Exam Candidates respond to one starting point set by Cambridge International. Candidates may produce work from the same area of study as Component 1, but they do not have to. There are two parts to the assignment: – supporting studies and – a final outcome, produced during a supervised test of 8 Hours' total duration. Externally assessed	50%

There is no upper limit to the amount of preparatory time that candidates may have in order to prepare for the examination. However, candidates must have at least two weeks' preparation time and candidates must receive both their question papers at the same time.

For all components, an examination piece plus up to two sheets (four sides) of supporting studies (maximum size A2) is assessed.

For the Cambridge A Level in Art & Design, candidates take four components

Components	Weighting
Component 1: Coursework One project and up to five sheets of supporting work (max size A2) 100 marks	25%
Component 2: Controlled Test One project and up to three sheets of supporting work (max size A2) Minimum three weeks preparatory time and an exam 100 marks	25%
Component 3: Personal Investigation One project plus folder of supporting work (max size A2, max 8 sheets) Presentation of the study may take any appropriate format (max 1,500 words) 100 marks	50%

ENRICHMENT OPPORTUNITIES

- Studying 'A level Art and Design will help students to develop intellectual, imaginative, creative and intuitive skills.
- They will have the opportunity to investigate, experiment, develop practical skills as well as aesthetic understanding and critical judgment.
- Yet perhaps more valuable than anything, they will enjoy opportunities to develop independence of mind, explore their own ideas, refine their skills and produce personal outcomes.

BEYOND A LEVEL/UNIVERSITY EDUCATION

Candidates who do the required portfolio work in the 'A Level Art and Design course can use that portfolio in their university applications if they are applying for undergraduate degrees specialising in the Arts.

Art & Design students often pursue a career in:

- Fine Arts (painting and sculpture)
- Design (Communication design, textiles, ceramics, photography)
- Media Studies & Film Making
- Architecture

SUBJECT CHOICES AND REQUIREMENTS

SUBJECT SELECTION – INTERNATIONAL OPTION (For M2 students progressing to C1 in 2024-2025)

COMPULSORY SUBJECTS:

English Language (IGCSE-0500)

Mathematics-0580

Option Subjects: You must select one subject from each option block. You may opt for either Computer Science or Information & Communication Technology.

A	B	C	D	E	F
Accounting-0452	Biology- 0610	Mathematics Additional- 0606	Mathematics Additional- 0606	Art & Design-0400	Accounting-0452
Mathematics Additional- 0606	Business Studies- 0450	History (World) - 0470	Biology-0610	Computer Science-0478	French-0520
Biology-0610	Chemistry-0620	Computer Science-0478	Business Studies- 0450	Business Studies- 0450	German- 0525
Chemistry-0620	Computer Science-0478		Chemistry-0620		
Computer Science-0478	English Literature- 0475		Computer Science-0478		
Physics-0625	Physics- 0625	Physics-0625	Physics-0625		
Art & Design-0400	Information & Communication Technology- 0417	Information & Communication Technology- 0417	Economics- 0455		

* *Mathematics- Additional – 0606 is an advanced mathematics course.*

* *For the other remaining periods, Library / Project Work will be held under the supervision of respective faculty members.*

SUBJECT SELECTION – NATIONAL OPTION (For M2 students progressing to C1 in 2024-2025)

COMPULSORY SUBJECTS:

English Language (IGCSE-0500) - Mathematics-0580 - Islamiyat-0493 - Pakistan Studies-0448

Urdu A IGCSE Urdu

(First Language, O-Levels - 3247)

(0539)

Option Subjects: You must select one subject from each option block. You may opt for either Computer Science or Information & Communication Technology.

A	B	C	D
Accounting-0452	Biology- 0610	Mathematics Additional- 0606	Mathematics Additional- 0606
Mathematics Additional- 0606	Business Studies- 0450	Computer Science- 0478	Biology-0610
Biology-0610	Chemistry-0620	History (World) - 0470	Business Studies- 0450
Chemistry-0620	Computer Science- 0478	French-0520	Chemistry-0620
Computer Science-0478	Physics- 0625	German- 0525	Computer Science - 0478
Physics- 0625	English Literature- 0475	Physics- 0625	Physics- 0625
Art & Design-0400	Information & Communication Technology- 0417	Information & Communication Technology- 0417	Economics- 0455
Library / Project Work	Library / Project Work	Library / Project Work	Library / Project Work

* *Mathematics- Additional – 0606 is an **advanced** mathematics course.*

* *Library / Project Work classes will be held under the supervision of respective faculty members.*

SUBJECT SELECTION GUIDE

Pakistan: 7 O Level/IGCSE subjects and 3 A Level principal subjects are required for admission in Pakistan. Equivalence certificates for both O and A Levels are required for all public and private universities (except those that are offering the External Degree Programme being offered by The University of London). These certificates can be obtained from the IBCC offices. Kindly study the IBCC website to ensure that you select the required subjects needed for the student to be placed in the correct group (science, arts, general science, humanities etc) while being issued their equivalence certificate.

Canada: 7 O Level/IGCSE subjects, 4 AS Level subjects and 3 A Level subjects required for admission to Canadian universities. Preferred subjects, particularly for STEM courses are, Mathematics, Physics and Chemistry. Applicants who present the minimum requirements are not guaranteed admission.

United States: 4 A level subjects are strongly recommended for applying to the most competitive universities and for aid or for scholarship. SAT/ACT test is usually required.

United Kingdom: 7 O Level/IGCSE subjects and minimum 3 A Level principal subject passes usually required. However, competitive UK universities do not guarantee admission to students presenting minimum academic requirements. Students applying for engineering courses may be required to submit a grade for A Level Further Mathematics.

Other Countries: 7 O Level/IGCSE subjects and 3-4 A Level subjects usually required. An A Level in the relevant subject(s) may be required.

BIOLOGY: Biology gives an in depth understanding of the natural world. A degree in Biology opens doors to admission in top universities in Pakistan and world over.

CHEMISTRY: Chemistry is a prerequisite for pursuing professional education in medicine, pharmacy, medical technology, biomedical engineering, nuclear medicine, molecular biology, biotechnology, pharmacology, toxicology, paper science, pharmaceutical science, hazardous waste management, art conservation, forensic science and patent law. Thus, a chemistry degree can be effectively combined with advanced work in other fields which may lead, to work in higher management (sometimes with an M.B.A.), the medical field (with a medical degree), or in the patent field (possibly with a law degree).

PHYSICS: Extremely important for admissions to local Medical and Engineering universities and for most international Engineering schools.

MATHEMATICS: Essential in order to opt for different fields such as Economics, Accounting, Business, Engineering and Computer Sciences in UK, Canada & Pakistan. It is a very strong subject from the perspective of international and local universities.

COMPUTER SCIENCE: Computer Science is dynamic and rapidly growing key area for future careers. Computer Science & IT degree is valued and offered by top universities since it requires development of analytical thinking and problem solving skills that are useful in latest technologies. However, it's challenging and is not a compulsion in A levels.

ACCOUNTING, BUSINESS STUDIES, ECONOMICS: Not a prerequisite for universities of UK, US, Canada and Pakistan. A level math is strongly recommended for admission in Accounting and Economics.

ART, DESIGN & ARCHITECTURE: Opting for Art & Design in IGCSE and A-Level is extremely helpful when applying for national and international universities, especially when they require portfolios. Universities recommend Mathematics alongside Art & Design for a major in Architecture.

NOTE FROM THE COUNSELING OFFICE

FOREIGN LANGUAGES:

Taking an additional language other than English and Urdu is advised for students planning to apply for admission to foreign universities.

IELTS/TOEFL

Students applying for admission into international universities, particularly in US, Canada and anywhere in Europe are strongly advised to take the IELTS or TOEFL anytime during their A1.

SAT I and ACT

All students are required to take SAT 1 OR ACT as early as the start of A1 (preferably August, October, December). Different entrance tests are required for admission to different local and international universities. Please check with the counseling offices as early as the start of A1.

SAT 1/ACT tests are required for admission to universities in US, Germany and Singapore. They may also be required for admission to LUMS, NUST and other local universities.



Aitchison College
Senior School
CURRICULUM GUIDE
2024-2025

www.cambridgeinternational.org