

Class 11 & 12

Course Choices 2022-2023



DYATMIKA
EDUCATION FOR A BETTER WORLD



Introduction

This booklet contains all the information you need to make choices for your Class 11 and 12 programme of study.

The General Information section gives you an overview of the AS and A Level curriculum and the selection process for 2022-2023. It includes advice to help you choose subjects sensibly.

The main part of the booklet introduces you to all the different subjects which are available for study at AS and/or A level. We try to cater for all students, but please be aware that subjects may be timetabled against each other depending on demand; not every student will always get their first choices.

The last page contains a list of people you may want to talk to if you have any doubts about the process of choosing your options. If you are not sure about a particular subject then you must ask the advice of the specialists who teach it.

Remember to base your choices on what is right for you, not what your friends have selected. Discuss your options carefully with your parents and any of the teaching staff.

This is your opportunity to start shaping your future and the first step is to read this booklet carefully. We will contact you next semester to arrange a meeting to confirm course choices.



Sekolah Dyatmika

2022-2023

COURSE CHOICES - CLASS 11 & 12

GENERAL INFORMATION



Transition to Class 11 and 12

Subject choices

In class 11 and 12, students reduce the number of subjects being studied in order to follow more detailed and challenging syllabi in their chosen subjects. Ideally, students will choose subjects with an idea of the type of career or University course that they hope and wish to follow. **AS and A Level courses are academically rigorous and challenging courses, requiring a high level of self discipline and a high work ethic.**

Most students at this stage know whether they favour the Social Sciences, the Sciences or creative disciplines, but students who are unsure of the courses they wish to study should keep their options as wide as possible, to allow flexibility later on. It should be remembered however that most science courses require specific science skills, where as courses in Social Sciences are less specific.

The courses in Classes 11 and 12 follow the Cambridge Curriculum at Advanced Subsidiary (AS) or Advanced (A) level. The AS level courses are one year in duration and can be taken on their own or as the first year of an A level course. The A level courses are two years in duration, the first year being the AS course and the second year being the A2 course, which is an extension of the work studied at AS level.

Most University courses require students to have studied three A level subjects, usually preceded by four AS level subjects. There are some exceptions to this, but this should be the minimum aim of students.

The country in which students wish to study at University is also relevant when choosing AS Level courses, and this should be discussed at options meetings with Pak Jon, Pak Andy, Pak Max, or the school counselors.

The examining board used at Dyatmika is Cambridge International Examinations; courses are “linear” with an examination of the entire AS or A Level course in May/June.



Extracurricular activities

In addition to academic studies, all students are expected to take part in extracurricular activities. These not only broaden students' skill sets, but make students more desirable when applying to University. There are various extracurricular programmes that are linked to academic study which also provide opportunity for students to meet with students from other schools in Bali, and further afield in Asia.

- Model United Nations
- Global Issues Network
- The Duke of Edinburgh's International Award
- Community service (e.g. literacy in local SDs)
- Sports programmes
- Extra curricular clubs e.g. cooking, film making, dance

The Class 11 and 12 Timetable

During the school day students will have study periods where no lesson is timetabled;

During these periods students must study privately in the Study Room or in specialist areas such as the Computer Room or the Art Room.

It is essential that students make the best possible use of these study periods; they may be studying fewer subjects, but the complexity of the subjects at this level is far greater than at IGCSE.



Course Choices and Academic Requirements

Subject	Minimum IGCSE Grade Required*
Maths	B
English Language	C (B if IGCSE First Language English without English Literature)
English Literature	C
Biology	B
Physics	B
Chemistry	B
History	C
Geography	C
Business	C
Economics	C (B in a Humanities subject if Economics has not been taken at IGCSE)
Information Technology	C
Art	B
Music	C
Psychology	C (Science)

*Teachers may consider some exceptions if circumstances are appropriate

In addition to the academic requirement, you must have achieved a C or above in IGCSE English Language and Mathematics. If not, you will be required to retake alongside your AS choices.

Students not meeting the minimum requirements may be required to retake Class 10.



Course Choice Timeline

December

Course choice booklets emailed home, explaining the content and career paths supported by each subject available at IGCSE, AS and A Level. Our university application guidelines booklet is also included so parents and students can discuss and research together a possible path (university paths are often very heavily guided by finances)



February

Course choice evening is held; all students and parents meet with the teachers of all subjects to discuss their chances of success in each subject, and what each subject can offer. In addition, times are available to book to meet with Pak JonC, Pak Andy, Pak Max, or the counselors to discuss choices and university.



March

Deadline for choices. Following this, all staff meet to discuss each student's choices to ascertain whether the choices give them the best chances of success, or whether there may be suggestions to take different courses.

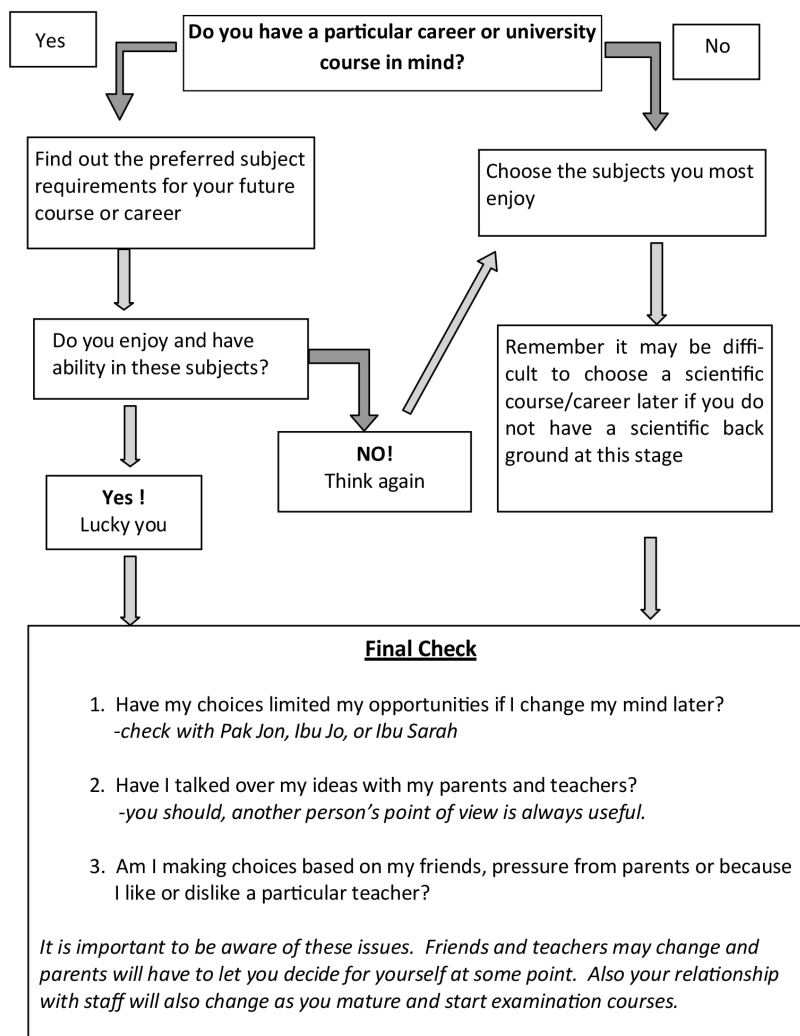
With this information, Home Room teachers will then meet individually to confirm the choices with the students, and where necessary invite parents too.

Throughout the process, parents are welcome to contact Pak Andy, Pak Max, or Pak JonC and ask to meet at anytime.

Expert university counselor visit; for Classes 6-11 appointments are available for any further information needed in university or career counseling - although generally this is mostly needed for applications to the US as it is a complicated process and there are so many universities.

How to Choose Subjects

In choosing your option subjects keep in mind both your ability and interest in particular subjects. The following diagram emphasises the main points you should be considering:





Mathematics AS/A Level (9709)

“Mathematics is a place where you can do things which you can’t do in the real world. Mathematics has beauty and romance. It’s an extraordinary place; it’s worth spending time there.”

- Prof. Marcus du Sautoy



Course Brief

A rigorously demanding course which is one of the most positively recognised by universities and employers, the Cambridge AS and A level Mathematics course:

- Develops mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- Develops an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject
- Develops a range of mathematical skills, particularly those which will enable students to use applications of mathematics in the context of everyday situations and in other subjects they may be studying
- Develops the ability to analyse problems logically, 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
- Develops the ability to use mathematics as a means of communication with emphasis on the use of clear expression.

This subject will be suitable for students who have previously achieved a satisfactory pass in the IGCSE Extended Maths subject. AS students will study two units and a further two units are required to gain A level.

Course Structure

AS Topics	A2 Topics
Pure 1 <ul style="list-style-type: none">• Quadratics• Functions• Coordinate geometry• Equations of circles• Circular measure• Trigonometry• Series• Differentiation• Integration	Pure 3 <ul style="list-style-type: none">• Algebra (absolute value, polynomials)• Logarithmic and exponential functions• Trigonometry• Differentiation• Integration• Parametric equations• Numerical solution of equations• Vectors• Differential equations• Complex numbers



COURSE CHOICES - CLASS 11 & 12

AS Topics	A2 Topics
Statistics 1 <ul style="list-style-type: none">• Representation of data• Permutations and combinations• Probability• Discrete random variables• The normal distribution	Mechanics 1 <ul style="list-style-type: none">• Velocity, acceleration and forces• Newton's laws• Friction• Motion due to gravity• Work, energy and power• Momentum

Assessment Structure

	Structure	Time	Weighting AS	Weighting A2
Pure 1	1 hour 50 minute exam	May/June of Class 11	60%	
Statistics 1	1 hour 15 minute exam	May/June of Class 11	40%	
Pure 3	1 hour 50 minute exam	May/June of Class 12		60%
Mechanics 1	1 hour 15 minute exam	May/June of Class 12		40%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

Mathematics is a valuable A level and suitable as a prerequisite for most university courses, but particularly for Mathematics, Science, Engineering and Economics.



English Literature AS/A Level (9695)

**“Every secret of a writer’s soul,
every experience of his life,
every quality of his mind is
written large in his works.”**

- Virginia Woolf



Course Brief

The study of literature at AS/A-Level is a lively and invigorating experience, involving discussion, debate and high-powered thinking. As this course progresses, you will become more confident, and strengthen your individual opinions and ideas. You will also make huge discoveries about the world, the meaning of life, human nature and who you truly are! The academic aims of this course 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
- analyse 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.

Course and assessment structure

AS Topics and assessment	A2 Topics and assessment
<p>Students take Paper 1 (Drama and Poetry) 2 hour exam 50 marks 50% of the AS level 25% of the A level Two compulsory essay questions – one on a drama text and one on a poem.</p> <p>Dramatists and Poets and you are likely to encounter: Arthur Miller, Wole Soyinka Thomas Middleton, Athol Fugard, Shelagh Stephenson, Robert Browning, Owen Sheers, Gillian Clarke, W B Yeats, Elizabeth Barrett Browning, Wilfred Owen, Moniza Alvi, Simon Armitage, William Blake, Rudyard Kipling, Imtiaz Dharker</p>	<p>Students take Paper 2 (Prose and Unseen) 2 hour exam 50 marks 50% of the AS level 25% of the A level Two compulsory essay questions – one on a prose text and one on an unseen text (prose, drama or poetry).</p> <p>Writers you are likely to encounter: EM Forster, Andrea Levy, Ngugi wa Thiong'o, Mark Twain, Ian McEwan, Edith Wharton, Thomas Hardy, Ralph Ellison, Marghanita Laski, Ken Liu, Katherine Mansfield.</p>



Course and assessment structure

AS Topics and assessment	A2 Topics and assessment
<p>Students take Paper 3 (Shakespeare and Drama) 2 hour exam 50 marks 25% of the A level</p> <p>Two compulsory essay questions-one on the Shakespeare play and the dramatist that you have studied.</p> <p>Shakespeare plays you may encounter: The Winter's Tale, King Lear, Measure for Measure, The Merchant of Venice</p> <p>Dramatists you are likely to encounter: Athol Fugard, Tennessee Williams, Tom Stoppard, Shelagh Stephenson</p>	<p>Students take Paper 4 (Pre- and Post-1900 Poetry and Prose) 2 hour exam 50 marks 25% of the A level</p> <p>Two compulsory essay questions- one the pre-1900 author and one on the post-1900 author that you have studied.</p> <p>Authors you are likely to encounter: Pre-1900 Geoffrey Chaucer, Emily Dickinson, John Milton, Jane Austen, Thomas Hardy, Charles Dickens, Bram Stoker, John Donne,</p> <p>Post-1900 Derek Walcott, Stephen Spender, Jackie Kay, Virginia Woolf, Margaret Atwood, Barbara Kingsolver, Sujata Bhatt, Stephen Spender, James Joyce, Jean Rhys</p>

NOTE: AS and A Level are worth 50% each of the final grade.

Careers

Top universities around the world highly-prize students who succeed at Literature A-Level. The A level prepares students well for any university course, but can provide access to areas of specialism such as: literature, linguistics, law, philosophy, politics, journalism, and creative writing.



English Language AS/A Level (9093)

“If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart.”

— Nelson Mandela



Course Brief

The study of language at AS/A-Level is a dynamic and varied experience. You will research and read texts from all genres that cover a wide range of topics. Lessons involve discussions; close textual analysis; individual and group presentations; quizzes and creative writing. As this course progresses, you will become more confident and sophisticated readers, and writers. You will also develop:

- enjoy the experience of studying English Language
- develop a critical and informed response to texts in a range of forms, styles and contexts, produced for a variety of audiences
- communicate effectively, 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.

Course and assessment structure

AS Topics and assessment	A2 Topics and assessment
<p>Students take Paper 1 Reading 2 hour 15 minute exam 50 marks 50% of the AS level 25% of the A level</p> <p>Students answer two compulsory essay questions on two unseen texts. Students are required to analyse and evaluate how writers use form structure and language to create meaning and effects.</p> <p>Texts will be taken 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 and narrative/descriptive writing.</p>	<p>Students take Paper 3 Writing 2 hour exam 50 marks 50% of the AS level 25% of the A level</p> <p>Section A: Shorter writing and reflective commentary Students are asked to produce a piece of non-fiction writing (400 words) from a variety of forms: advertisements, brochures, leaflets, editorials, news stories, articles, reviews, blogs, investigative journalism, letters, podcasts, (auto) biographies, diaries, essays, scripted speech. In part B, students evaluate their own piece of writing.</p> <p>Section B: Extended Writing Students choose one question from a choice of three. The questions assess students' ability to produce- informative, discursive, persuasive, descriptive, or narrative texts.</p>



AS Topics and assessment	A2 Topics and assessment
<p>Students take Paper 2: Language Analysis 2 hour 15 minute exam 50 marks 25% of A level</p> <p>Section A: Language Change Students will explore how English has continually adapted to reflect changes in the social, cultural, political and technological contexts in which it has been used. In the exam, students will write an essay that analyses an unseen text and historical language data (n-graphs and corpus data). They will also be required to refer to theories of language change.</p> <p>Section B: Child Language Acquisition Students will explore the stages of early development (0-8 years) in child language acquisition, considering the various features and functions of spoken language use during this period, and familiarising themselves with a range of relevant theories and conventions within the field. In the exam, they will write an essay analysing a transcript and applying their wider reading.</p>	<p>Students take Paper 4: Language Topics 2 hour 15 minute exam 50 marks 25% of A level</p> <p>Section A: English in the world Students will explore the history of English as a 'global' language; the development of standard and nonstandard forms of English, including the varieties used by first-language users outside the UK; and ethical considerations related to the continuing expansion of English usage around the world.</p> <p>Section B: Language and the self Students will explore how language allows us to communicate our sense of self to others, as well as playing a highly significant role in the ongoing construction, determination and development of that self. Students will study the degree to which language is innate, learned or both; the ways in which language and thought are connected and how we use language both consciously and unconsciously, to construct and maintain social identities.</p> <p>In the exam, students will write two analytical and discursive essays that respond to the key points made in two unseen texts and apply their wider reading.</p>

NOTE: AS and A Level are worth 50% each of the final grade.

Careers

Top universities, from around the world, highly-prize students who succeed at Language A-Level. The A level prepares students well for any university course, but can provide access to areas of specialism such as: law, linguistics, philosophy, politics, journalism, media, communication studies and creative writing.

IMPORTANT NOTE: The syllabus for this course has changed considerably in comparison to previous years. Please ensure that you read the course details closely and speak to your teachers if you have further questions.



Biology AS/A Level (9700)

**“There is no result in nature
without a cause; understand
the cause and you will have no
need of the experiment.”**

- Leonardo da Vinci



Course Brief

An understanding of the principles of Biology has become increasingly important in the modern world, in order for us to make informed choices about our personal health and to interact with the natural environment in a sustainable manner. This practical importance, combined with our natural curiosity about ourselves and other organisms with which we share our planet, are just some of the reasons why Biology is a popular choice at AS and A Level.

The course is a natural progression from IGCSE; Biology students will develop their practical and investigatory skills, together with an ability to critically analyse data.

Students are introduced to the molecular basis of life, the genetic basis of evolution and the environmental factors involved, with particular attention on how man is now able to intervene directly in this process. Students are introduced to the mechanisms and technology of genetic engineering and the possible medical, industrial, social and ethical implications.

Course Structure

AS Topics	A2 Topics
<ol style="list-style-type: none">1. Cell Structure2. Biological Molecules3. Enzymes4. Cell Membranes and Transport5. The Mitotic Cell Cycle6. Nucleic Acids and Protein Synthesis7. Transport in Plants8. Transport in Animals9. Gas Exchange and Smoking10. Infectious Disease11. Immunity	<ol style="list-style-type: none">12. Energy and Respiration13. Photosynthesis14. Homeostasis15. Control and Co-ordination16. Inherited Change17. Selection and Evolution18. Biodiversity, Classification and Conservation19. Genetic Technology
Advanced Practical Skills	Experimental Planning and Analysis and Interpretation of Results



Assessment Structure

Paper	Structure	Time	Weighting AS	Weighting A2
1	Multiple Choice 40 marks	1 hr	31%	
2	AS Structured Questions 60 marks	1 hr 15 min	46%	
3	Advanced Practical Skills 40 marks	2 hours	23%	
4	A2 Structured Questions 100 marks	2 hours		77%
5	Planning, Analysis and Evaluation 30 marks	1 hr 15 min		23%

NOTE: AS and A Level are worth 50% each of the final grade.

Careers

A Level Biology can lead to many Science degrees related to Biology, these degrees offer many well known career opportunities plus many new and novel areas for the 21st century, such as:

Medicine; Health care; Education; Research; Sport; Nutrition; Science Writing and Communication; Forensic Biology, Anthropology, ecology and conservation.



Physics AS/A Level (9702)

“Look up at the stars and not down at your feet. Try to make sense of what you see, and wonder about what makes the universe exist. Be curious.”

- Stephen Hawking



Course Brief

Physics is a key discipline in science, constantly developing and producing theories with the aim to provide explanations for natural phenomena from the very big (motion of planets) to the very small (interactions of sub-atomic particles). The Cambridge AS and A Level course:

- Develops abilities and skills that are relevant to the study of science, useful in everyday life and encourages safe & efficient practices and communications.
- Stimulates interest in, and care for the environment in relation to the environmental impact of Physics and its applications.
- Promotes awareness of social, economic, technological, ethical and cultural influences in Science, and shows the implications of Physics may be both beneficial and detrimental to individuals, communities and environments

Course Structure

AS Topics	A2 Topics
Paper 1 & Paper 2 <ul style="list-style-type: none">• Kinematics & Dynamics• Accelerated Motion• Forces – vectors and scalars• Work, energy and power• Momentum and Matter• Deforming solids• Electricity – Kirchhoff's law, Practical circuits, resistivity• Waves – Superposition of waves, Stationary waves• Radioactivity	Paper 4 <ul style="list-style-type: none">• Circular Motion• Gravitational fields• Oscillations• Thermal physics and Ideal gases• Coulomb's law and charged particles• Capacitance• Magnetic fields and electromagnetism• Alternating currents• Quantum and Nuclear Physics• Direct sensing• Medical imaging• Communication systems
Paper 3 <ul style="list-style-type: none">• Successful collection of data• Range and distribution of value• Quality of data• Table of results: layout, raw data and calculated quantities• Graph – Layout, plotting of points, trend line and interpretation• Drawing conclusions• Estimating uncertainties• Identifying limitations and suggesting improvement	Paper 5 <ul style="list-style-type: none">• Plan an experiment• Perform an experiment according to a plan• Analysis, conclusions and evaluation• Method of analysis & data collection• Safety considerations• Graph• Treatment of uncertainties



Assessment Structure

Paper	Structure	Time	Weighting AS	Weighting A2
Paper 1	Multiple choice questions	1 hour	31%	
Paper 2	AS structured questions	1 hour	46%	
Paper 3	Advanced Practical skills	2 hours	23%	
Paper 4	A2 structured questions	2 hours		76%
Paper 5	Planning, analysis, evaluation	1 hour 15 min		24%

NOTE: AS and A Level are worth 50% each of the final grade.

Careers

After English and Mathematics, Physics is one of the most important qualifications for many careers. Universities and employers rate Physics qualifications very highly. The A Level prepares students well for any University course, but provides access to areas of specialism such as:

- Engineering – Aeronautical, electrical, chemical, computer, production, mechanical, automobile, biomedical, mining, structural, architectural, civil, etc.
- Astronomy, space science, audiology, computer programming, forensic science, geophysics, telecommunications, radiography, physicist and many more.



Chemistry AS/A Level (9701)

**“Chemistry begins in the stars.
The stars are the source of the
chemical elements, which are
the building blocks of matter
and the core of our subject.”**

- Prof Peter Atkins



Course Brief

We live in an age dominated by science and technology; Chemistry is one of the key disciplines in science – often called the ‘central science’ as it overlaps with both Biology and Physics. It aims to explain the observable properties of matter using atomic and molecular theories. You can discover the value of science to society, and how it may be used responsibly.

Current technology is studied in assessing the processes of design of novel materials, nanotechnology, and analysis and purification techniques relevant to the problems facing society today.

Course Structure

AS Topics	A2 Topics
<ul style="list-style-type: none">• Moles and equations• Atomic Structure• Electron Orbits• Chemical Bonding• States of Matter• Enthalpy Changes• Redox and Electrolysis• Equilibrium• Rates of Reactions• Periodicity• Groups 2 and 17; N and S• Organic Chemistry• Hydrocarbon; halogenoalkanes; alcohols and carbonyls	<ul style="list-style-type: none">• Lattice Energy• Electrode Potentials• Ionic Equilibria• Reaction Kinetics• Transition elements• Benzene and its compounds• Carboxylic acids and acyl compounds• Organic Nitrogen compounds• Polymerization• Applications of analytical chemistry; Electrophoresis; NMR; Mass Spectroscopy; Chromatography• Design of materials; new medicines, nanotechnology; polymers; green chemistry
Advanced practical skills	Experimental Planning and Analysis and Interpretation of Results



Assessment Structure

Paper	Structure	Time	Weighting AS	Weighting A2
1	Multiple Choice 40 marks	1 hr	31%	
2	AS Structured Questions 60 marks	1 hr 15 min	46%	
3	A2 Structured Questions 100 marks	2 hours	23%	
4	A2 structured questions	2 hours		76%
5	Planning, Analysis and Evaluation 30 marks	1 hour 15 min		24%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

All Sciences are highly regarded by Universities for any course. But Chemistry is required specifically for many degree courses and careers:

Medicine, chemical engineering - drug and material design, nanotechnology, research technologies.

Education, Sport, Nutrition, Agricultural and Food industries, Science Writing and Communication, Forensics. Law Consultancy, Environmental Protection.



History AS/A Level (9489)

**“A generation without history
is a generation that not only
loses a nation’s memory but
loses a sense of what it’s like
to be inside a human skin.”**

- Prof. Simon Schama



Course Brief

A-Level in History is seen as very valuable by universities and employers alike. Students who undertake an A-Level in History will be required to demonstrate and develop a wide range of transferable skills, which makes an A-Level in History excellent preparation for life beyond school. History is an exciting yet demanding course which will invigorate students' minds by developing analytical and evaluative skills, extensive and detailed writing and persuasive and argumentative discipline.

Students must be prepared for the rigorous demands of extensive essay writing and reading around the topics to be studied. The History A-Level at Dyatmika is a varied and interesting study of some of the key issues, events and characters that have shaped the world we live in today.

Course Structure

AS Topics	A2 Topics
<p>The AS course involves the study of 4 aspects of American History from 1820-1941, with a source - based document question on The origins of the Civil War, 1820-61 in Paper 1.</p> <p>CONTENT IN Component 1: This paper requires students to answer one two-part document question that uses the sources and their own knowledge to address how the sources support a statement.</p>	<p>This A Level course involves the study of two units; the first Europe in the interwar years and the dictators that flourished through this time period and second "The Holocaust".</p> <p>CONTENT IN Component 3: Historical Interpretation: The Holocaust In this paper students will study the historiography of the Holocaust.</p>
<p>CONTENT IN Component 2: Causes of the Civil War Civil War and Reconstruction The Gilded Age and Progressive Era The Great Crash, The Great Depression and New Deal.</p> <p>This paper requires students to answer two questions; one explanation based and the second an essay style question that evaluates the significance of factors.</p>	<p>CONTENT IN Component 4: Europe in the interwar years, 1919-41 This paper focuses on the dictators who ruled two European nations in the period 1919-41. Students will study the events that took place in Russia and Germany.</p> <p>Theme 1: Stalin's Russia 1924-41 Theme 2: Hitler's Germany 1929-41</p>



Assessment Structure

	Structure	Time	Weighting AS	Weighting A2
COMPONENT 1	EXAM (Document Exercise)	1 hr 15 min	40%	
COMPONENT 2	EXAM (Outline Study)	1 hr 45 min	60%	
COMPONENT 3	EXAM (Historical Interpretation)	1 hr 15 min		40%
COMPONENT 4	EXAM (Depth Study)	1 hr 45 min		60%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

Students wishing to go to University to study any degree that includes a high amount of academia will find a History A-Level to be ideal preparation. Such degree subjects include History itself, and also Law, Sociology, Archaeology, Media, Journalism, Marketing and Management to name but a few. Beyond University, a History A-Level and/or History degree have been proven to be valued by a wide range of employers, due to the extensive and transferable skills that are developed during Historical study. Students who obtain good History A-Levels and/or Degrees have gone on to successful careers in areas such as Heritage, Law, Journalism, Research, Politics, Economics, Teaching, Marketing and Management.



Sekolah Dyatmika

2022-2023

COURSE CHOICES - CLASS 11 & 12

Geography AS/A Level (9696)

**“Geography is the subject which
holds the key to our future”
- Michael Palin**



Course Brief

A level Geography is an academic subject that enables students to gain a better understanding of the world, and events that take place in our everyday lives. At both AS and A level, students study human and physical geographical processes, such as human migration streams, population dynamics, river processes and flooding, tectonic and climatic hazards. At A level, students study these processes in more depth and consider the interaction between them through exploring environmental and hazard management, as well as the impact of development and economic transition on global human and physical phenomena. Fieldtrips are a key part of geography as they help bring to life the processes and impacts studied in class and embed a deeper understanding. At Dyatmika, students are encouraged to attend an affordable fieldtrip to see some geography in action and develop understanding of the geographical topics required for their examination.

Geography is a diverse and exciting subject that is relevant to our everyday lives and our ever-evolving world. The course provides the opportunity to develop key analytical and decision-making skills and techniques that are highly employable attributes to have.

Course Structure

AS Topics	A2 Topics
Component 1 Physical Core: Hydrology and fluvial geomorphology Atmosphere and weather Rocks and weathering Human Core: Population Migration Settlements	Component 2 Advanced physical options: Tropical environment Coastal environment Hazardous environment Arid and semi-arid environments Component 3 Advanced Human Options: Production, location and change Environmental management Global Interdependence Economic transition



Assessment Structure

	Structure	Time	Weighting
Component 1 (AS Geography)	Exam	3 hours	50%
Component 2 (A2- Advanced physical option)	Exam (In depth)	1 hour 30 mins	25%
Component 3 (A2- Advanced human option)	Exam (In depth)	1 hour 30 mins	25%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

Geography is a relevant and diverse academic subject that provides the opportunity for students to develop key analytical and decision-making skills. These are highly employable attributes to have and as a result, Geography graduates are considered amongst the most employable for a wide range of careers. If students have a passion for Geography and wish to study Geography-related degrees at University there is a wide range to choose from. Specialisms can include; Geography, Geology, Development Studies, Global Issues, International Studies, Economics, Tourism and Leisure, Environmental Management, Town Planning, Chartered Surveying and Hazard Mitigation.

The Royal Geographical Society states that 'There is no such thing as a geography job, but there are a plethora of jobs that geographer's do' and it is the foundation of key skills and analytical understanding that geography students are equipped with that provides a firm base for a successful career and life-long learning.



Business AS/A Level (9609)

**“Your time is limited, so don’t
waste it living someone else’s
life.” – Steve Jobs**



Course Brief

Business helps you to gain an understanding of business activity from small enterprises to multi-national organisations. The course covers a wide range of topics, such as human resource management, finance, production and marketing and integrates them in the context of the organisation's external environment. The course aims to encourage students to:

- Understand and appreciate the nature and scope of business, and the role of business in society
- Develop critical understanding of organisations, the markets they serve and the process of adding value.
- Be aware of the economic, environmental, ethical, governmental, legal, social and technological issues associated with business activity.
- Develop skills in:
 - Decision-making and problem solving in the light of evaluation
 - The quantification and management of information Effective communication

Course Structure

AS Topics	A2 Topics
<ul style="list-style-type: none">• Business and its environment• People in organisations• Marketing• Operations and Project Management• Finance and Accounting	The topics at A2 Level are an extension of each of the AS topics with the additional topic of Strategic Management



Assessment Structure

(All students take all papers)

	Structure	Time	Weighting AS	Weighting A2
Paper 1 (AS)	Short answer questions and essay 1 hour 15 min exam	May/June	40%	20%
Paper 2 (AS)	Data Response 1 hour 30 min exam	May/June	60%	30%
Paper 3 (A2)	Business Decision-Making 1 hour 45 minutes case study	May/June		30%
Paper 4 (A2)	Business Strategy 1 hour 15 minutes case study	May/June		20%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

A Business Studies A Level is well regarded as a means of preparing for a wide range of university courses particularly those which have business studies or management content. It is also a useful preparation if you are considering starting your own business or wish to follow a career in finance, accounting, marketing, management and other business related areas. Students should check that their university of choice accepts Business Studies before they choose it; this is mainly applicable to universities in the US.



Sekolah Dyatmika

2022-2023

COURSE CHOICES - CLASS 11 & 12

Economics AS/A Level (9708)

**“A study of economics usually
reveals that the best time to buy
anything is last year.”**

- Marty Allen



Course Brief

The Cambridge Economics AS and A Level focuses on the nature of economics. It examines essential microeconomics, which analyses the market behaviour of individual consumers and firms, and macro economics, which focuses on the national and international economy.

The course aims to:

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

Course Structure

AS Topics	A2 Topics
<ul style="list-style-type: none">• Basic Economic Ideas and resource allocation• The price system and the micro economy• Government microeconomic intervention• The macro economy• Government macro intervention• International Economic issues	A2 topics are the same as the AS topics but with additional material.



Assessment Structure

(All students take all papers)

	Structure	Time	Weighting AS	Weighting A2
Paper 1 (AS)	Multiple Choice 1 hour	May/June	33%	17%
Paper 2 (AS)	Data Response and Essay 2 hours	May/June	67%	33%
Paper 3 (A2)	Multiple Choice 1 hour and 15 minutes	May/June		17%
Paper 4 (A2)	Data Response and Essays 2 hours	May/June		33%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

Economics is a valuable subject for students who wish to enter university courses in Economics, Business Administration, Accounting, Politics, Law or Journalism. It should be noted that it is not necessary to take A-level Economics in order to study economics at university. Although AS/A-level Mathematics is not required to study Economics at A-level, it is a requirement for many university courses in Economics.



Information Technology AS/A Level (9626)

**"I think there is a world market for
maybe five computers"**
- Thomas Watson, chairman of IBM,
1943

**"Sometimes when you innovate,
you make mistakes. It is best to
admit them quickly, and get on with
improving your other innovations."**
- Steve Jobs



Course Brief

The Information Technology AS and A Level courses build on the knowledge and skills developed at IGCSE. The course aims to:

- develop a broad range of IT skills
- develop an understanding of the parts, use and applications of IT systems within a range of organisations, including the use of basic computer networks
- develop an understanding of how IT systems affect society in general
- develop an understanding of the main system life cycle and apply this understanding to workplace situations
- develop a broad knowledge of the use of IT in workplace situations
- develop an understanding of project management skills (A Level only)
- be aware of new and emerging technologies
- be aware of the role of the internet and its potential but also its risks
- apply their knowledge and understanding of IT to solve problems (spreadsheets, databases, mail merge, sound and video editing, graphics creation, animation, programming for the web).

Course Structure

AS Topics	A2 Topics
Data processing and information Hardware and software Monitoring and control Algorithms and flow charts eSecurity The digital divide Expert systems Spreadsheets Modelling Database and file concepts Sound and video editing	IT in society New and emerging technologies Communications technology Project management System life cycle Mail merge Graphics creation Animation Programming for the web



Assessment Structure

	Structure	Time	Weighting AS	Weighting A2
Paper 1	Theory (written): 1 hour 45 minutes	May/June	50%	
Paper 2	Practical: 2 hours 30 minutes	May/June	50%	
Paper 3	Advanced Theory (written): 1 hour 45 minutes	May/June		50%
Paper 4	Advanced Practical: 2 hours 30 minutes	May/June		50%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

In a world where information technology (IT) is constantly changing, individuals increasingly need technological and information literacy skills that include the ability to gather, process and manipulate data.

The impact of IT on society is enormous and as the percentage of businesses and households connected to communication networks such as the internet grows, so does the need for individuals who understand these new technologies.

This syllabus encourages learners to become effective and discerning users of IT. It helps them to develop a broad range of IT skills, knowledge and understanding.

This course prepares students for a variety of university and career options, including careers and / or further studies in information systems, web authoring, database design, systems analysis and software engineering. Students should check the course requirements of their university of choice to confirm their choice of Information Technology AS and A Level.



Sekolah Dyatmika

2022-2023

COURSE CHOICES - CLASS 11 & 12

Art and Design AS/A Level (9479)

**“To draw you must close your
eyes and sing.”**

- Pablo Picasso



Course Brief

Cambridge International AS and A Level Art and Design is recognised by universities and employers as proof of knowledge and understanding of art and design principles and practice. Successful candidates gain lifelong skills, including:

- communication skills, especially the ability to communicate concepts and feelings
- how to record from direct observation and personal experience
- the ability and confidence to experiment, be innovative, intuitive and imaginative
- the language and technical terms used in art and design
- research and evaluation skills
- an appreciation of practical design problems and how to solve these.

The course stimulates interest, enjoyment and personal enrichment as well as introducing artistic exploration and designing.

This subject will be suitable for students who are independent learners and have previously achieved a satisfactory pass in the IGCSE Art and Design subject. It is essential that you are prepared to work hard and have a passion for the subject. A personal approach is encouraged throughout the course and it is expected that students will work in their own time to independently develop their projects.

Course Structure

AS Topics	A2 Topics Personal Investigation Topic
<p>Pupils complete units of work building on the creative experiences acquired at IGCSE.</p> <p>Possible areas of study could include Fine Art, Graphic Communication, Three-dimensional Design or Textile & Fashion.</p> <p>Students determine their own project investigation with guidance and feedback from the teacher.</p>	<p>Pupils complete one component which is an integrated study of practical and written work.</p> <p>Students investigate a theme, idea, concept or process that is personal to them.</p> <p>There are two parts to the investigation: practical work and written analysis of 1000–1500 words.</p> <p>Gallery visits are essential for this component.</p>



Course Structure

The emphasis at both AS and A Level is about developing your own personal ideas and intentions as a developing young artist. In response to a project brief, you will be expected to record your own experiences and observations from first-hand and secondary resources and personal research. You will also develop knowledge and experience of a range of materials, techniques and processes appropriate to your ideas and intentions. As part of the course, you will research and critically analyse the work of contemporary and historical artists to inform your own ideas. Throughout the course, you will develop the ability to reflect, review and refine your work as it progresses.

You will be given on-going, constant feedback which will enable you to develop your working practices, allowing you to meet your full creative potential. Art trips and participating in artist workshops will also provide you with first hand experience of art outside of school. Overall, you should create a coherent body of supporting studies from a starting point to a well developed final outcome.

Assessment Structure

	Structure	Time	Weighting AS	Weighting A2
Component 1 Coursework	<p>Students research, develop and realise a project from one area of study in the syllabus content.</p> <p>There are two parts to the coursework: a portfolio and a final outcome.</p> <p>Externally assessed</p> <p>10 x A2 portfolio boards 1 x final piece A1 in size</p>	January	50%	25%
Component 2 Art Exam	<p>Students choose one starting point to develop into a personal response.</p> <p>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.</p> <p>Externally assessed</p> <p>5 x A2 portfolio boards 1 x exam final piece</p>	March	50%	25%



COURSE CHOICES - CLASS 11 & 12

	Structure	Time	Weighting AS	Weighting A2
Component 3 Personal Investigation	Students 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. Externally assessed	April		50%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

This is an essential subject for those wishing to pursue a career in any of the creative industries.



Sekolah Dyatmika

2022-2023

COURSE CHOICES - CLASS 11 & 12

Music AS/A Level (9483)

**“Music gives a soul to the universe,
wings to the mind, flight to the
imagination and life to everything.”
- Plato**



Course Brief

AS and A Level Music candidates develop an appreciation of, and an informed critical response to, music of the Western tradition, from at least two genres and periods. Candidates learn how to listen attentively and responsively in order to better understand the musical processes at work. They also learn how to communicate this understanding, supporting their judgements by evidence-based argument.

As part of the course, candidates are encouraged to develop their own creative and interpretative skills through the disciplines of composing and performing in Western and/or non-Western traditions. This leads, in turn, to a deeper understanding of music in its wider cultural context

Course Requirements

Candidates should be at a good standard (approximately Grade 4/5) on at least one instrument (which may include the voice) and be committed to regular practice and lessons on their chosen instrument. They should have a basic knowledge and understanding of staff notation.

Course and Assessment Structure

Components	Weighting
<p>1 Listening Written examination (2 hours) - 100 marks</p> <p>Section A: Compositional Techniques and Performance Practice (35 marks) This section will test aural perception, music literacy and applied contextual understanding in relation to familiar and unprepared works from the baroque era. Candidates will be required to apply their knowledge from the familiar set works to unprepared music.</p> <p>Set Works (2022): Arcangelo Corelli Concerto Grosso Op. 6 No. 8 ('Christmas') Johann Sebastian Bach Orchestral Suite No. 3, BWV 1068</p> <p>Section B: Understanding Music (35 marks) This section will test musical understanding and aural perception in relation to familiar works.</p> <p>Set Works (2022): Time and Place Peter Ilyich Tchaikovsky 1812 Overture, Op.49 Samuel Barber Knoxville: Summer of 1915, Op.24 Peter Sculthorpe Third Sonata for Strings 'Jabiru Dreaming' (1994)</p> <p>Section C (30 marks) This section will test musical and contextual understanding and personal engagement with a wide range of listening. There are no set works. Candidates will be expected to demonstrate a wider understanding of contextual and cultural issues, and to make connections. Candidates are required to answer questions about musical or aesthetic issues. Candidates should be prepared to express reasoned opinions, construct an argument and support their judgements. A wide range of listening in your own time is vital to your preparation for this component.</p>	60%



Course and Assessment Structure

Components	Weighting
<p>2 Practical Musicianship Coursework – 100 marks 40 percent (AS Level), 20 percent (A Level)</p> <p>Element 1 (50 marks) Candidates perform a selection of contrasting music of their choice in a programme of 6 to 10 minutes. Candidates must present a vocal or instrumental performance. If instrumental, the performance must be on one instrument. The music may be from any tradition(s) appropriate to the instrument. Performances may be solo and/or ensemble, unless the nature of the instrument is such that it is traditionally only played in an ensemble. An audience may be present.</p> <p>Element 2 (50 marks) Candidates must create two contrasting compositions in any tradition (Western and/or non-Western) in a style or genre of their choice. Each composition should be 1–2 minutes long. The combined duration of both compositions should be 2–4 minutes. Each composition should have a clear sense of purpose, occasion and/or an audience in mind. Each composition should be for two or more voices/instruments. Candidates may use any sound source. This may be an instrument, voice or combination and/or music technology. If music technology sound sources are used, these must be manipulated.</p> <p>A Level (Class 12) Components 3, 4 and 5 (Candidates choose two) Candidates must choose two from:</p> <ul style="list-style-type: none"> Extended Performance Extended Composition Investigating Music <p>Each component is marked out of 100 marks</p> <p>Extended Performance—video recording of 6–8 minute performance and 1000–1500 word essay. Extended Composition—Audio recording of pieces and 1000–1500 word essay. Investigating Music—Research report and reflective statement.</p>	<p>20%</p> <p>20%</p>

Careers

AS and A Level Music is a very useful qualification to have, even if you are not thinking of specialising in music later on. Particularly useful for any job where creative skills, self-discipline and energy are required: TV & Radio (presenting or production), the film industry, theatre, music management, music therapy, recording engineer, music teacher, record industry, professional musician. (singer, orchestra member, pop star, etc.) composer or arranger (pop songs, TV themes, adverts, Internet websites, computer games,



Psychology AS/A Level (9990)

**“One day, in retrospect, the
years of struggle will strike you
as the most beautiful.”**

- Sigmund Freud



Course Brief

Psychology ties itself to any field that benefits from having an in-depth understanding of human thought, behaviour, and emotions. Studying Psychology provides students with the foundation needed to answer questions on why people think, behave, and feel the way they do, and to use this knowledge to improve the quality of human life in various contexts and environments.

The course begins at AS Level by developing students' knowledge and skills in research methods to test theories on human behaviors through 12 core Psychology studies. In A2, students will have the opportunity to explore the applications of Psychology in the real world. The Abnormality component explores how Psychology is applied in the clinical setting to understand and treat mental disorders, while the Consumer Behaviour component explores how Psychology is applied in helping businesses better understand and interact profitably with consumers.

Throughout the course, students are engaged in not only knowledge building, but also in research designing, data analysing, as well as critically evaluating studies and concepts in relation to common issues and debates in Psychology.

Course Structure

AS Topics	A2 Topics
<p>Research methods</p> <ul style="list-style-type: none">• Experiments• Observations• Psychometric tests• Case studies <p>Cognitive Psychology</p> <ul style="list-style-type: none">• Attention & memory recall• Autism Spectrum & 'Theory of Mind'• False memory <p>Learning Psychology</p> <ul style="list-style-type: none">• Classical conditioning & phobia• Operant conditioning & animal training• Observational learning & aggression	<p>Psychology & Abnormality</p> <ul style="list-style-type: none">• Specific phobia• Agoraphobia• Generalised anxiety disorder• Clinical depression• Bipolar disorder• Pathological gambling• Pyromania• Kleptomania• Obsessive-compulsive disorder• Body dysmorphia• Compulsive hoarding



COURSE CHOICES - CLASS 11 & 12

AS Topics	A2 Topics
Biological Psychology <ul style="list-style-type: none"> • Emotions and the brain • Two-factor theory of emotions • Sleep stages and dreaming • Social Psychology • Obedience • Diffusion of responsibility • Targeted helping in animals 	Psychology & Consumer Behaviour <ul style="list-style-type: none"> • Retail environment design • Menu design psychology • Crowding and shopping movement patterns • Consumer decision-making • Intuitive thinking • Sales techniques • Product packaging • Communication and advertising techniques • False memory and advertising

Assessment Structure

Paper	Structure	Time	Weighting AS	Weighting A2
1	Short-answer questions and one essay 60 marks	1 hr 30	50%	25%
2	Short-answer questions and one essay 60 marks	1 hr 30	50%	25%
3	Short-answer questions and two essays 60 marks	1 hr 30		25%
4	Short-answer questions and two essays 60 marks	1 hr 30		25%

NOTE: AS and A Level are each worth 50% of the final grade.

Careers

A degree in Psychology commonly leads to the following career paths:

- Health: Clinical Psychologist, Child Psychologist, Therapist/ Counselor, Health Psychologist
- Education: Special Needs Teacher/Support, School Counselor, Educational Psychologist
- Business: Human Resources & Training, Consultant, Market Researcher, Data Analyst

Students wishing to practice Psychology professionally in the mental health field will need to complete further studies at Postgraduate level after completing their undergraduate Psychology degree.



Cambridge Examination Fees

Cambridge Assessment International Education charge a fee for students who take examinations at IGCSE, AS and A Levels. These fees must be paid by parents before students are entered into examinations, in line with Cambridge's regulations.

In order to streamline the process of examination entry, parents are asked for an advance payment during October to cover the cost of all exam fees. In 2021-22 this payment was:

Class 10 IDR 14 million

Class 11 IDR 7 million

Class 12 IDR 6.5 million

Please Note:

1. Cambridge change their fees slightly each year and exact fees are affected by the IDR to GBP exchange rate.
 - The exact cost is calculated after the entries are confirmed, and retrospective invoices issued.
 - Any surplus fees are credited against future school fees.
 - Any shortfall due to major currency fluctuations are billed to parents.
2. Examination entries are only processed once fee payment is received. Delays in payment by parents will result in a 'late entry fee', following Cambridge Assessment International Education's procedures. The school cannot absorb late fee costs, it is billed to parents.
3. Dyatmika does not charge any additional administration fees for these examinations.
4. Parents will receive a letter early in the school year when examination fees are to be paid.
5. Parents are responsible for fees associated with any examination resits.
6. Please note that Dyatmika's policy is that the failure to pay school fees (with or without a payment plan in place) will result in the withholding of reports and official education certificates. Paying the Cambridge examination fee does not allow access to Cambridge certificates when other school fees are unpaid. This is stated on the fee table.



Support and Advice

Counselors.....Ibu Irma, Pak Ridzki (counsellors@dyatmika.org)
Careers Adviser.....Pak Max (max@dyatmika.org)
Academic and Pastoral Leader.....Pak Andy (andrew@dyatmika.org)
Head of High School.....Pak Jon C (jcherry@dyatmika.org)

All subject teachers are available to give advice on their subjects.

Resources and Books

The School will purchase all textbooks. Students must buy the books for their AS and A Level courses.

Students will pay per book depending on book cost; this information is available at the school shop.

One book per subject is also available in the school library.



Cambridge Assessment
International Education

Cambridge International School



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