សាលាអន្តរជាតិ អ៊ីសវ៉េស
East-West International School
#131 Street 360
Sangkat Boeung Keng Kang 3
Khan Chamkarmon
Phnom Penh, Cambodia
www.ewiscambodia.edu.kh

Grade	English 8 credits minimum	Mathematics 6 credits minimum	Science 6 credits minimum	Social Studies 6 credits minimum
9	**One of the following:** IGCSE English First Language IGCSE English Second Language	**One of the following:** IGCSE Mathematics Core IGCSE Mathematics Extension	IGCSE Coordinated Science	**One of the following:** IGCSE History IGCSE Geography IGCSE Business Studies **For non-KGE students:** IGCSE Global Perspectives
10	**One of the following:** IGCSE English First Language IGCSE English Second Language	**One of the following:** IGCSE Mathematics Core IGCSE Mathematics Extension	IGCSE Coordinated Science	**One of the following:** IGCSE History IGCSE Geography IGCSE Business Studies **For non-KGE students:** IGCSE Global Perspectives
11	**One of the following:** AS English Language AS English Literature *AS English Language (½ paced)* IELTS	**One of the following:** AS Mathematics (Pure Mathematics 1 and Probability & Statistics 1) *AS Mathematics - ½ paced (Pure Mathematics 1)*	AS Chemistry AS Biology AS Physics Environmental Science Food Chemistry	AS Global Perspectives AS History AS Geography Spanish Language Korean Language Business Studies
12	**One of the following:** A2 English Language A2 English Literature *AS English (½ paced)* IELTS	**One of the following:** A2 Mathematics (Pure Mathematics 3 and Probability & Statistics 2) A2 Mathematics (Pure Mathematics 3 and Mechanics) *AS Mathematics - ½ paced (Probability & Statistics 1)*	A2 Physics A2 Chemistry A2 Biology Environmental Science Food Chemistry	A2 Global Perspectives A2 History A2 Geography Spanish Language Business Studies

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		AS Mathematics - ½ paced (Mechanics)		

Electives

Athletics: Physical Education
Arts: Art, Digital Media, Music, Drama
Social Studies: Foreign Languages, Business Studies, School Media, Service Learning, Student Council
Information and Communications Technology: IGCSE ICT, AS ICT, A2 ICT

*Students must earn a minimum of 2 PE credits and 4 Arts credits

English

Course	Code	Description	Credits
IGCSE English First Language	0500	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.	1.0
IGCSE English Second Language	0510	Cambridge IGCSE English as a Second Language offers learners the opportunity to develop practical communication skills in listening, speaking, reading and writing.	1.0
AS English Language	9093	Cambridge International AS Level English Language provides learners with opportunities to make critical and informed responses to a wide range of texts. Learners will also demonstrate their ability to produce writing to specific briefs and for given audiences.	1.0
AS English Language (½ paced)	9093	Cambridge International AS Level English Language provides learners with opportunities to make critical and informed responses to a wide range of texts. Learners will also demonstrate their ability to produce writing to specific briefs and for given audiences. This class covers the same content as the AS English Language course but spreads it out over a two year period to allow for greater time to be spent	1.0

		on each element.	
IELTS	N/A	The IELTS course focuses on academic skills, with the goal of preparing students to successfully sit the IELTS test. During the course, you will be engaged with different, exciting topics and practice speaking, listening, grammar, reading and writing.	1.0
AS English Literature	9695	Cambridge International AS Literature in English will provide learners with the opportunity to gain further knowledge and understanding of international poetry, prose and drama, with candidates studying all genres at both levels. At AS Level learners will study three set texts and prepare for one unseen text.	1.0
A2 English Language	9093	Cambridge International A Level English Language learners will also develop a strong foundation in the study of linguistics, focusing on language change, child language acquisition, spoken language, English in the world, and language and the self.	2.0
A2 English Literature	9695	Cambridge International AS Literature in English will provide learners with the opportunity to gain further knowledge and understanding of international poetry, prose and drama, with candidates studying all genres at both levels. At A Level learners will study **four** set texts and will further develop their subject knowledge through the evaluation of opinions and ideas, both their own and those of others.	2.0

Social Studies

Course	*Code*	*Description*	*Credits*
		Cambridge IGCSE History offers the opportunity to study world history from the nineteenth century to the beginning of the twenty-first century. It encourages learners to raise questions and to	

IGCSE History	0470	develop and deploy historical skills, knowledge and understanding in order to provide historical explanations. Learners will explore history from a diversity of perspectives, including social, economical, cultural and political.	1.0
IGCSE Geography	0460	Cambridge IGCSE Geography aims to enable students to develop an understanding of location on a local, regional and global scale, an awareness of the characteristics, distribution and processes affecting contrasting physical and human environments, and an understanding of the ways in which people interact with each other and with their environment.	1.0
IGCSE Global Perspectives	0457	Cambridge IGCSE Global Perspectives provides opportunities for enquiry into, and reflection on, key global issues from different perspectives: personal, local/national and global. The course encourages awareness of global problems and offers a range of opportunities to explore solutions through cooperation and collaboration. The course is not about getting everybody to think identically; rather it is a matter of opening minds to the complexity of the world and of human thought, and encouraging empathy for the diversity of human experience and feeling.	1.0
IGCSE Business	0450	Cambridge IGCSE Business Studies aims are to enable students to apply their knowledge and critical understanding to current issues and problems in a wide range of business contexts, to make effective use of relevant terminology, concepts and methods, and recognise the strengths and limitations of the ideas used in business, to distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements, and to appreciate the perspectives of a range of stakeholders in relation to the business environment, individuals, society, government and enterprise.	1.0

AS History	9389	AS History aims to develop in students 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, and an appreciation of the nature and diversity of historical sources available, and the methods used by historians.	1.0
AS Geography	9696	AS Geography occupies a central position in understanding and interpreting issues affecting people, places and environments, and change in both space and time. Students develop an understanding of the principal processes operating within physical geography and human geography, an understanding of the causes and effects of change on natural and human environments, and an awareness of the usefulness of geographical analysis to understand and solve contemporary human and environmental problems.	1.0
AS Global Perspectives	9239	Cambridge International AS Level Global Perspectives and Research is a skills-based course that prepares learners for positive engagement with our rapidly changing world. Learners broaden their outlook through the critical analysis of – and reflection on – issues of global significance. They will develop unique, transferable skills including research, critical thinking and communication by following an approach to analysing and evaluating arguments and perspectives called the 'Critical Path'.	1.0
A2 History	9389	A Level History aims to develop in students 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, and an appreciation of the nature and diversity of historical sources available, and the	2.0

		methods used by historians.	
A2 Geography	9696	AS Geography occupies a central position in understanding and interpreting issues affecting people, places and environments, and change in both space and time. Students develop an understanding of the principal processes operating within physical geography and human geography, an understanding of the causes and effects of change on natural and human environments, and an awareness of the usefulness of geographical analysis to understand and solve contemporary human and environmental problems.	2.0
A2 Global Perspectives	9239	Cambridge International A2 Level Global Perspectives and Research is a skills-based course that prepares learners for positive engagement with our rapidly changing world and builds upon the content learned in AS Level. Students must write a 5,000 word paper and participate in a Model United Nations in order to satisfy the criteria of the course.	2.0
General Business	N/A	General Business follows the IGCSE curriculum framework, but for students in Grades 11 and 12. The course aims are to enable students to apply their knowledge and critical understanding to current issues and problems in a wide range of business contexts, to make effective use of relevant terminology, concepts and methods, and recognise the strengths and limitations of the ideas used in business, to distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements, and to appreciate the perspectives of a range of stakeholders in relation to the business environment, individuals, society, government and enterprise.	1.0
		Spanish as a Foreign Language, according to the Common European Framework of References for Languages (CEFR) aims to enable students to apply their listening comprehension skills, practice their speaking skills, reading skills and writing skills.	1.0

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Spanish	N/A	The CEFR has 6 levels, which can be divided between Basic- Independent and advanced level. Students make effective use of the relevant vocabulary and real life simulations to facilitate corresponding communications in Spanish.	
French	N/A	The aim is to develop an ability to use the language effectively for practical communication. The course is based on the linked language skills of listening, reading, speaking and writing, and these are built on as learners progress through their studies. The syllabus also aims to offer insights into the culture of countries where French is spoken, thus encouraging positive attitudes towards language learning and towards speakers of other languages.	1.0
Korean	N/A	The class aims to provide an introduction to Korean, including the Korean alphabet, grammar, and spoken Korean used for daily communication. Lessons cover skills of listening, speaking, reading, writing, and interactive practices through which students can use the language actively and develop communication skills. Korean culture will be taught as well to help broaden students' understanding of Korean society. Students will be able to appreciate the beginner level of literary writings by acquiring a linguistic sense of the Korean language.	1.0
Chinese	N/A	The class aims to provide an introduction to Mandarin, including the Chinese alphabet, grammar, and spoken Mandarin used for daily communication. Lessons cover skills of listening, speaking, reading, writing, and interactive practices through which students can use the language actively and develop communication skills. Chinese culture will be taught as well to help broaden students' understanding of Chinese society. Students will be able to appreciate the beginner level of literary writings by acquiring a linguistic sense of the Mandarin language.	1.0

School Media	N/A	School media is a class where students learn about the art of journalism by creating a monthly school newspaper. They learn about researching, writing, photographing, and editing with a purpose towards publishing.	1.0
Service Learning	N/A	Service learning is a powerful teaching methodology wherein students perform service in their local communities to meet real needs as a means of learning an important subject matter. Service learning is being widely practiced in many high schools throughout the world. Having schools learn important curricular objectives by providing service yields benefits for all involved.	1.0
Theory of Knowledge	N/A	As a thoughtful and purposeful inquiry into different ways of knowing, and into different kinds of knowledge, TOK is composed almost entirely of questions. The most central of these is "How do we know?", while other questions include: What counts as evidence for X? How do we judge which is the best model of Y? What does theory Z mean in the real world? Through discussions of these and other questions, students gain greater awareness of their personal and ideological assumptions, as well as developing an appreciation of the diversity and richness of cultural perspectives.	1.0

Science

Course	*Code*	*Description*	*Credits*
		Cambridge IGCSE Co-ordinated Sciences gives learners the opportunity to study Biology, Chemistry and Physics within a cross-referenced, scientifically coherent syllabus. It is a double award qualification,	

IGCSE Coordinated Science	0654	earning two grades. Learners gain an understanding of the basic principles of each subject through a mix of theoretical and practical studies, while also developing an understanding of the scientific skills essential for further study. They learn how science is studied and practised, and become aware that the results of scientific research can have both good and bad effects on individuals, communities and the environment. As well as focusing on the individual sciences, the syllabus helps learners to understand the technological world in which they live, and take an informed interest in science and scientific developments.	1.0
AS Chemistry	9701	Cambridge International AS and A Level Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Chemistry is ideal for learners who want to study chemistry or a wide variety of related subjects at university or to follow a career in science.	1.0
		Cambridge International AS and A Level Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of biology, and a strong emphasis on advanced practical skills.	

AS Biology	9700	Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Biology is ideal for learners who want to study biology or a wide variety of related subjects at university or to follow a career in science.	1.0
AS Physics	9702	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, some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of physics ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Physics is ideal for learners who want to study physics or a wide variety of related subjects at university or to follow a career in science.	1.0
Food Chemistry	N/A	The course applies basic scientific principles to food systems and practical applications. It focuses on the molecular bases of chemical phenomena that dictate the behavior of foods. Chemical/biochemical reactions of carbohydrates, lipids, proteins, and other constituents in fresh and processed foods are discussed with respect to food quality. Laboratories	1.0

		and recitations provide opportunities for students to observe, manipulate, and explore model food systems.	
Environmental Studies	N/A	This course is designed to acquaint students with the physical, ecological, social, and political principles of environmental science. The scientific method is used to analyze and understand the interrelationships between humans and the natural environment. The course shows how ecological realities and the material desires of humans often clash, leading to environmental degradation and pollution. The course covers the following topics: Earth's Systems, Human Population Dynamics, Natural Resources, Environmental Quality, Global Changes, and Environment and Society.	1.0
A2 Chemistry	9701	Cambridge International AS and A Level Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Chemistry is ideal for learners who want to study chemistry or a wide variety of related subjects at university or to follow a career in science.	2.0

A2 Biology	9700	Cambridge International AS and A Level Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Biology is ideal for learners who want to study biology or a wide variety of related subjects at university or to follow a career in science.	2.0
A2 Physics	9702	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, some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of physics ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Physics is ideal for learners who want to study physics or a wide variety of related subjects at university or to follow a career in science.	2.0
Marine Biology	N/A	Marine Science stimulates learners' interest in science of the marine world and enhances their	1.0

		understanding of its relevance to society. The syllabus: • builds knowledge of scientific concepts and theories that are fundamental to the subject, and engages learners to apply them to a new context • helps learners understand the intricate nature of the marine environment and its ecosystem and encourages a sense of responsibility for the environment • develops a range of practical skills that are essential for the subject and can be developed in any future scientific study • develops an understanding of concepts and scientific skills essential for progression to Cambridge International AS & A Level, further education or a career related to science.	

Mathematics

Course	*Code*	*Description*	*Credits*
IGCSE Math Core	0580	The aims are to enable students to:develop an understanding of mathematical principles, concepts and methods in a way which encourages confidence, provides satisfaction and enjoyment, and develops a positive attitude towards mathematics. In addition, to develop a feel for numbers and understand the significance of the results obtained. And also, to apply mathematics in everyday situations and develop an understanding of the part that mathematics plays in learners' own lives and the world around them. The Core content is intended for learners targeting grades G–C.	1.0
		The aims are to enable students to:develop an understanding of mathematical principles, concepts and methods in a way which encourages confidence, provides satisfaction and enjoyment,	

IGCSE Math Extended	0580	and develops a positive attitude towards mathematics. In addition, to develop a feel for numbers and understand the significance of the results obtained. And also, to apply mathematics in everyday situations and develop an understanding of the part that mathematics plays in learners' own lives and the world around them. The Extended content is intended for learners targeting grades D–A*.	1.0
AS Mathematics (Pure Maths 1 and Stats 1)	9709	AS Mathematics focusing on concepts such as problem solving, communication, and mathematical modeling. Pure Math 1 covers: quadratics, functions, coordinate geometry, circular measure, trigonometry, series, and differentiation. Stats 1 covers: representation of data, permutations and combinations, probability, discrete random variables, and the normal distribution.	1.0
AS Mechanics	9709	AS Mechanics is the study of the branch of applied mathematics dealing with motion and forces producing motion. Students taking AS Mechanics for the purpose of earning an AS Level award are advised to also take Pure Maths 1 in combination. Mechanics covers: forces and equilibrium, kinematics of motion in a straight line, momentum, Newton's laws of motion, and energy, work, & power.	1.0
A2 Mathematics (Pure Maths 3 and Stats 2)	9709	A2 Mathematics provides a foundation for the study of mathematics or related courses in higher education. Equally it is suitable as part of a course of general education. Students study Pure Math 3 and Stats 2 only if they have studied Pure Maths 1 and Stats 1 at AS Level. Pure Math 3 covers: algebra, logarithmic and exponential functions, trigonometry, differentiation, integration, numerical solutions of equations, vectors, differentiation questions, and complex numbers. Stats 2 covers: the Poisson distribution, linear combinations of random variables, continuous random variables,	1.0

		sampling and estimation, and hypothesis tests.	
A2 Mathematics (Pure Maths 3 and Stats 1)	9709	A2 Mathematics provides a foundation for the study of mathematics or related courses in higher education. Equally it is suitable as part of a course of general education. Students study Pure Math 3 and Stats 1 only if they have studied Pure Maths 1 and Mechanics at AS Level. Pure Math 3 covers: algebra, logarithmic and exponential functions, trigonometry, differentiation, integration, numerical solutions of equations, vectors, differentiation questions, and complex numbers. Stats 1 covers: representation of data, permutations and combinations, probability, discrete random variables, and the normal distribution.	1.0
AS Mathematics (½ paced)	9709	AS Mathematics focusing on concepts such as problem solving, communication, and mathematical modeling. Pure Math 1 covers: quadratics, functions, coordinate geometry, circular measure, trigonometry, series, and differentiation. Stats 1 covers: representation of data, permutations and combinations, probability, discrete random variables, and the normal distribution. The half-paced class aims to cover these concepts over a two-year period.	1.0

Athletics

Course	*Code*	*Description*	*Credits*
Physical Education	N/A	A high quality P.E curriculum which inspires all pupils to succeed and excel in competitive sport and other physically demanding activities.It provides opportunities for pupils to become physically confident in a way that supports their health and fitness. Opportunities to compete in sports and other activities build character and help embed values such as fairness and respect.	1.0

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Arts

Course	Code	Description	Credits
Contemporary Art	N/A	Students will be acquainted with mid to late 20th century art movements from Pop Art to Post-modern Art, as they look into the socio-historical changes in the world that influenced the attitudes, norms, and concepts of art and artmaking in various forms.	1.0
Design Thinking	N/A	Students are introduced to the Design Thinking process, starting from empathizing with clients, defining the problem, ideation, creating prototypes, and testing.	1.0
Art in Context	N/A	Students learn that art is contextual and is often influenced by the changing socio-political and economic climate of the times, which can either help develop or make obsolete a particular art style or art movement throughout history.	1.0
Music--Drums	N/A	Drums is the heartbeat of the band and therefore it is crucial for our students to learn drum notation and practice repetition of the composite rhythms. We pay particularly close attention to wrist-flexibility and hand-and-foot coordination when playing drum set through fundamental rudiments. While students' creativity is encouraged with spontaneous classes of improvisation and compositions of their own rhythm for their choice of song.	1.0
Music--Violin	N/A	This is our most unique course for students as we provide the foundation of violin-playing along with its fundamental techniques which has allowed all of our young creative minds to collaborate and execute outstanding ensemble playing. This program focuses on working with beginners towards playing challenging repertoires over time and with this classical instrument, music theory is taught to	1.0

		advance their musical understanding of the pieces played	
Music--Guitar	N/A	Harmonic and melodic guitar are both learned in this area and all varied types of strummed-strings instruments (acoustic guitar, electric guitar, bass guitar, ukulele). Additionally, students are being taught and practiced on how to accompany with guitar which the skills are tested through playing in band and concerts. While also improving on their solo playing with scales, complex chord progression, finger-style plucking.	1.0
Music--Vocals	N/A	The principal of vocal class is teaching the students to sing from within with mastered techniques, this includes: breath control, variation in dynamics, intonation, vibrato, projection and clarity of diction. All students will choose or be assigned to songs where they can majority work on their weakness point and are required to perform in front of small audiences to pass. In vocals, the main goal and joy is to witness the students' growth of confidence and passion throughout the year.	1.0
Drama	N/A	Drama is a practical and creative course that develops skills of speaking, listening, collaboration and critical thinking. The course builds knowledge of different forms of theatre, theatre practitioners and how these have been influenced by social, cultural and historical factors. As well as commenting on and critically engaging with a range of scripts and staged performances, we also explore the medium of theatre by using improvisation, scripts, devising our own plays and designing stage spaces and costumes. Performances are part of drama, so a staged production is one of the outcomes of the	1.0

		course.	
Digital Media	N/A	This course introduces students to a range of media concepts enabling them to improve their Digital Literacy and develop real-life skills in Digital Media. Modules include Graphic Design, Audio Production, and Video Production. Through investigative learning, facilitated by the Course Leader, students will be able to produce their own portfolio - both for use in further studies and their future careers. This is an opportunity for students to demonstrate and enhance their skills, acting as Project Managers in a professional context, whilst communicating with others and tapping into research areas that they find interesting in order to push the boundaries of creativity.	1.0

Information and Computer Technology

Course	*Code*	*Description*	*Credits*
IGCSE ICT	0417	IGCSE ICT aims are to develop in students a knowledge of ICT including new and emerging technologies, autonomous and discerning use of ICT, skills to enhance work produced in a range of contexts, and skills to analyse, design, implement, test and evaluate ICT systems.	1.0
		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.	1.0

AS & A2 ICT	9626	This syllabus encourages learners to become effective and discerning users of IT. It helps them to develop a broad range of IT skills, knowledge and understanding. Learners study the structure and use of IT systems within a wide range of organisations, including the use of a variety of computer networks. As a result, learners gain an understanding of IT system life cycles, and how these affect the workplace. They also learn about the wider impact of IT on society in general. At A Level, learners also study simple programming for the web relevant to their own use of IT.	
IGCSE Computer Science	0478	The aims are to enable students to develop: • computational thinking skills • an understanding of the main principles of solving problems using computers • the skills necessary to solve computer-based problems using a high-level programming language • an understanding of the component parts of computer systems and how they interrelate • an understanding of the internet as a means of communication and its associated risks • an understanding of the development and use of automated and emerging technologies.	1.0
AS Computer Science	9618	The key concepts for Cambridge International AS & A Level Computer Science are: • Computational thinking Computational thinking is a set of fundamental skills that help produce a solution to a problem. Skills such as abstraction, decomposition and algorithmic thinking are used to study a problem and design a solution that can be implemented. This may involve using a range of technologies and programming languages. • Programming paradigms A programming paradigm is a way of thinking about or approaching problems. There are many different programming styles that can be used, which are	1.0

		suited to unique functions, tools and specific situations. An understanding of programming paradigms is essential to ensure they are used appropriately, when designing and building programs. • Communication Communication is a core requirement of computer systems. It includes the ability to transfer data from one device or component to another and an understanding of the rules and methods that are used in this data transfer. Communication could range from the internal transfer of data within a computer system, to the transfer of a video across the internet. • Computer architecture and hardware Computer architecture is the design of the internal operation of a computer system. It includes the rules that dictate how components and data are organised, how data are communicated between components, to allow hardware to function. There is a range of architectures, with different components and rules, that are appropriate for different scenarios. All computers comprise of a combination of hardware components, ranging from internal components, such as the Central Processing Unit (CPU) and main memory, to peripherals. To produce effective and efficient programs to run on hardware, it is important to understand how the components work independently and together to produce a system that can be used. Hardware needs software to be able to perform a task. Software allows hardware to become functional. This enables the user to communicate with the hardware to	

		perform tasks. • Data representation and structures Computers use binary and understanding how a binary number can be interpreted in many different ways is important. Programming requires an understanding of how data can be organised for efficient access and/or transfer	