St Peter's College

Year 11 – Cambridge IGCSE Subject Guide



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CAMBRIDGE IGCSE COMPULSORY SUBJECT OUTLINES

ENGLISH FACULTY

Head of Faculty: Mr Stacy Humpage, shumpage@st-peters.school.nz

IGCSE English

COURSE COSTS	LEADS INTO
\$15	AS English

COURSE DESCRIPTION

This is a one year course that introduces students to the deeper study of Literature. It prepares students for continued studies in Literature, notably at Year 12 when they need to pass AS Literature to gain University Entrance. IGCSE Literature is a demanding course that requires students to discuss how writers use language for an intended purpose. Students will have the opportunity to study a range of poetry, short stories, novels and Shakespearean drama as well as non-fiction texts. They will analyse these for characterisation, crafting, and themes. The exam is externally assessed by Cambridge and will test both essay writing as well as analytical skills through a response to unfamiliar text. This is a very rewarding and enriching course.

MATHEMATICS FACULTY

Head of Faculty: Mr Matt Bindon, mbindon@st-peters.school.nz

IGCSE Mathematics

COURSE COSTS	LEADS INTO
NIL	AS Mathematics

COURSE DESCRIPTION

The Cambridge Extended Maths exam is made up of two Papers, Paper 2 and Paper 4. Both papers will test subject knowledge, applying methods and understanding to problem solving. They are equally weighted and the same length. Paper 2 is a non-calculator exam and Paper 4 is a calculator allowed exam. Pupils will be examined on their knowledge of Number, Algebra and graphs, Coordinate geometry, Geometry, Mensuration, Trigonometry, Transformations and vectors, Probability and Statistics. Grades available from the Extended course are A* to E.

AS Level Cambridge Accelerated Mathematics

ENTRY REQUIREMENTS	COURSE COSTS
at least 70% in IGCSE Mathematics	NIL

COURSE DESCRIPTION

This course is made up of two Papers: Pure Mathematics 1 and Statistics 1. Pure Mathematics 1 consists of the following topics: coordinate geometry, surds and indices, functions and graphs, quadratics, inequalities, differentiation, applications of differentiation, sequences, trigonometry, and integration. Statistics 1 has the following topics: representation of data, measures of location and spread, probability, probability distributions, binomial distributions, geometric distribution, expectation and variance of random variables and normal distribution.

Pure Mathematics 1 is worth 75 marks (60% of total mark) and has an exam of length 1 hour and 50 minutes. Statistics 1 is worth 50 marks (40% of total mark) with an exam length of 75 minutes.

SCIENCE FACULTY

Head of Biology: Ms Lynne Dell, Idell@st-peters.school.nz

Head of Chemistry: Dr Andrew Rogers, arogers@st-peters.school.nz

Head of Physics: Mr Peter Harris, pharris@st-peters.school.nz

CHOOSE AT LEAST ONE SCIENCE SUBJECT.

If students wish, they may choose other Science subjects as part of their three options.

IGCSE Biology

COURSE COSTS	LEADS INTO
\$25 for resources	AS Biology/L2 Biology

COURSE DESCRIPTION

IGCSE Biology is a single award IGCSE subject in Biology. The course develops key scientific skills and attitudes relevant to Biology. It helps students to better understand the biological world and gain key practical skills. IGCSE Biology is assessed with 3 examinations held in October and November.

IGCSE Chemistry

COURSE COSTS	LEADS INTO
\$25 for resources	AS Chemistry/L2 Chemistry

COURSE DESCRIPTION

IGCSE Chemistry is a single award IGCSE subject in Chemistry. The course develops key scientific skills and attitudes relevant to Chemistry. It helps students to better understand Chemistry and develops key practical skills. IGCSE Chemistry is assessed with 3 examinations held in October and November.

IGCSE Physics

COURSE COSTS	LEADS INTO
\$25 for resources	AS Physics/L2 Physics

COURSE DESCRIPTION

IGCSE Physics is a single award IGCSE subject which develops skills in Physics. The course aims to build key scientific skills and attitudes relevant to Physics. It helps students to better understand the physical world and gain key practical skills. IGCSE Physics is assessed with three examinations held in October and November.

THEOLOGY & PHILOSOPHY FACULTY

Head of Faculty: Mr Tim MacKenzie, tmackenzie@st-peters.school.nz

IGCSE World Religions

COURSE COSTS	LEADS INTO
\$25	12 AS Biblical Studies or Level 2 NCEA Religious Studies
ENTRY REQUIREMENTS	QUALIFICAITON
Year 10 Church History	Cambridge IGCSE Divinity

COURSE DESCRIPTION

Year 11 Cambridge bridges the gap between the more narrative study of Christian heritage (Year 9 Scripture and Year 10 Church History) and the more analytical study of Year 12 AS Biblical Studies and Year 12 & 13 Religious Studies Scholarship.

IGCSE World Religions introduces students to Judaism, Christianity and Islam. It investigates such themes as worship; beliefs and sacred writings; festivals, fasts, pilgrimage/historic places; religion and the family, rites of passage; and religion and social action. While Christianity is covered as an optional component of this course, most of the course concentrates on Judaism and Islam.

END OF COMPULSORY SUBJECT OUTLINES

CAMBRIDGE IGCSE OPTIONAL SUBJECT OUTLINES:

STUDENTS MUST CHOOSE THREE

ART FACULTY

Head of Faculty: Ms Nichola Barnden, nbarnden@st-peters.school.nz

IGCSE Art & Design

ENTRY REQUIREMENTS: Year 10 Art

COURSE COSTS	LEADS INTO
\$80 materials and printing fee, includes Art pack	AS Art and Design (Painting, Photography) or AS Digital Media and Design (Graphic Design)

COURSE DESCRIPTION

Students are required to complete two bodies of work: coursework and exam work (each worth 50% of the final mark). Each component takes a thematic approach and a range of drawings and drawing techniques will be produced in response to this. Ideas will be further developed in a series of paintings which will incorporate ideas and techniques from contemporary and traditional artist models. A final painting is then presented at the end. The final painting for the exam work will be completed in an eight hour formal examination

COMMERCE FACULTY

Head of Faculty: Mr Steve Rewcastle, srewcastle@st-peters.school.nz

IGCSE Economics

ENTRY REQUIREMENTS: Open Entry

COURSE COSTS	LEADS INTO
NIL	AS Economics

COURSE DESCRIPTION

The IGCSE Economics syllabus will develop an understanding of economic terminology and principles and of basic economic theory. Students will learn about the concepts of Microeconomics, Market Failure, Macroeconomics and the economics of developed and developing nations and how these concepts all interrelate. They will also learn to handle simple data and undertake economic analysis, evaluate information and discriminate between facts and value judgements in economic issues.

A foundation for further study at AS & A Level, the syllabus also encourages a better understanding of the world in which students live, and helps them play an active part in the decision-making process, whether as consumers, producers or citizens of the local, national and international community. No prior economic knowledge is required to enter this course, although completion of Year 10 Business Studies will provide a good basis of knowledge for this course.

LEADS INTO
AS Accounting

COURSE DESCRIPTION

Accounting is the language of business. The IGCSE syllabus introduces students to the theory and concepts of Accounting, and the ways in which Accounting is used in a variety of modern economic and business contexts. Pupils focus on the skills of recording, reporting, presenting and interpreting financial information. They form an ideal foundation for further study at AS & A Level, and for a future career within the business profession.

Accounting provides students with the tools to make real life financial decisions in a constantly changing and uncertain world. It enables students to develop the knowledge and skills to manage the financial affairs of individuals, communities, and businesses. No prior Accounting knowledge is required to enter this course, although completion of Year 10 Business Studies will provide a good basis of knowledge for this course.

HUMANITIES FACULTY

Head of Faculty Mr Jakub Kalinowski, jkalinowski@st-peters.school.nz

IGCSE History

ENTRY REQUIREMENTS: Year 10 Humanities

COURSE COSTS	LEADS INTO
NIL	AS History

COURSE DESCRIPTION

This course investigates critical developments between the two World Wars in the 20th century, as well as a depth study on Weimar and Nazi Germany. This course aims to introduce students to the skills and approaches required for studying senior Cambridge History. There is a focus on writing analytically, reading critically and evaluating source materials. The course is divided into three inter-related themes which allow for an in-depth analysis of important events, key personalities and all the factors which combined to create another global conflict in 1939.

Key Topics:

- Depth Study: Germany 1919-1945 Weimar Germany, The Rise of the Nazi Party and Hitler's Germany.
- Co-operation and Conflict between the Two World Wars (1919 1939) including: The Peace Treaties (1919-1923), the creation and operation(s) of the League of Nations, challenges to peace in the 1930s.
- A focus on a source-based module the topic changes yearly, but is based on 20th century world history topics and themes e.g. Origins of the Cold War, Collapse of Communism.

IGCSE Geography	
ENTRY REQUIREMENTS: Year 10 Humanities	
COURSE COSTS	LEADS INTO
NIL	AS Geography

COURSE DESCRIPTION

This contemporary course gives students a broad introduction to geography with both physical processes and human issues examined. It allows for an understanding of New Zealand and its place within the world, with locations on a local, regional and global scale studied. It recognises the different communities and cultures which exist around the world and how they are impacted by changing environmental conditions.

The course is divided into three assessment components:

- Paper 1 Geographical Themes (see topics below)
- Paper 2 Geographical Skills interpretation and analysis of geographical information
- Paper 4 Simulated Field Work Research

Topics studied are:

- Population and Settlement Population, Migration, Settlement
- The Natural Environment Plate Tectonics, Rivers, Coasts, Weather, Climate and Natural Vegetation
- Economic Development Development, Food Production, Industry, Tourism, Energy, Water

Year 11 Classical Studies	
ENTRY REQUIREMENTS: Year 10 Humanities	
COURSE COSTS	LEADS INTO
NIL	AS Classics

COURSE DESCRIPTION

This course is intended to bridge the gap between those who have completed the year 9 and/or 10 Latin courses and those who have not taken Latin and are interested in taking Cambridge (CAIE) Classical Studies in year 12.

The course is structured like an IGCSE subject, however, <u>there is no external examination</u> attached to this course.

The course acts as an introduction to the multi-disciplinary nature of studying Ancient History and will cover 4 topics in Art, Architecture, literature and history across Graeco-Roman culture from 1000 BCE – 300 CE.

In the areas of study in the contexts of Greece and Rome, students will be exploring:

- The development of Imperial Roman Architecture
- The development of Greek Vase Painting
- Apollonius' Epic poem: Jason and the argonauts
- The history of the Civil War period in Rome between Octavian and Mark Antony

The course will also focus on enabling students to develop skills in sophisticated essay writing, primary source interpretation and analysis, and evaluation of key evidence. The students will sit a midyear exam in Term 2 which will assess the first two art/architecture topics, and a prelim exam in Term 3 which will assess the literature/history topics.

LANGUAGES FACULTY

Head of Faculty: Ms Bingmei Zhang, bzhang@st-peters.school.nz

IGCSE Mandarin Chinese

COURSE COSTS	LEADS INTO
\$23 (+GST) Education Perfect Subscription	 AS Chinese (18-month course sat in October, Year 13); or Level 2 Chinese; and /or VUW online course (1 Semester Star program, which is worth 20 credits for a bachelor's degree)

Qualification Gained: IGCSE Chinese (sat in May, Year 12)

COURSE DESCRIPTION

The course is designed to allow students to use Chinese confidently in familiar situations. By the end of this course, successful students will be able to initiate and sustain a conversation with a sympathetic native speaker and will be able to communicate in most tourist type situations. They can use increasingly complex language patterns and are willing to experiment with new language and to read independently. They can write short passages and messages. Topics include holidays, healthy living, leisure activities, the immediate environment, my family and neighbourhood, and travelling.

Students sit 4 external examinations: Speaking, Listening, Reading and Writing.

IGCSE Spanish

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COURSE COSTS	LEADS INTO
\$23 (+GST) Education Perfect Subscription	 AS Spanish; or Level 2 Spanish; and/or VUW online course (1 Semester Star program, which is worth 20 credits for a bachelor's degree)

Qualification Gained: IGCSE Spanish

COURSE DESCRIPTION

This course seeks to build on the knowledge gained in Year 10 and extend students' structural and grammatical understanding of the Spanish language over a range of topics so they are confident in their ability to survive in a Spanish speaking environment.

They can speak in a variety of everyday situations and sustain a conversation about familiar topics They can write to express opinions and related events. Topics include holidays, healthy living, leisure activities, the immediate environment, my family and neighbourhood, and travelling.

Students sit 4 external examinations: Speaking, Listening, Reading and Writing.

MUSIC FACULTY

Head of Faculty: Mr Antun Poljanich, apoljanich@st-peters.school.nz

AS Level Music

ENTRY REQUIREMENTS: C grade in IGCSE Music or equivalent qualification

COURSE COSTS	LEADS INTO
NIL	A Level Music

COURSE DESCRIPTION

Course investigates Western Traditional music, with a focus on listening and musicianship.

Students will analyse and compare set works in a range of styles and will express their findings through essays. Students will compose two contrasting compositions, and perform a short recital on their instrument.

PHYSICAL EDUCATION FACULTY

Head of Faculty: Mr Kieran Machin, kmachin@st-peters.school.nz

IGCSE Physical Education

ENTRY REQUIREMENTS: Year 10 Physical Education & compulsory participation in a sport

COURSE COSTS	LEADS INTO
\$70 for AUT Millennium Trip	AS Academic Physical Education

COURSE DESCRIPTION

Component 1- Theory (50%)

This is a written paper to be assessed externally at the end of the year in a 1 hr 45 minute examination. It focuses on four modules of study:

Unit 1: Anatomy and physiology

Unit 2: Health, fitness and training

Unit 3: Skill acquisition and psychology

Unit 4: Social, cultural and ethical influences

Component 2- Practical (50%)

This is coursework in which candidates will follow a minimum of 4 activities offered. Assessments will take place in conditioned competitive situations. The average score will count towards 50% of their total marks. This will be internally assessed and externally moderated by CAIE.

Prerequisite – Must be participating in a competitive sport. This is imperative as this will be assessed for one of the four internal activities.

TECHNOLOGY FACULTY

Head of Faculty: Mr Jonathan Bay, jbay@st-peters.school.nz

IGCSE Design & Technology (Spatial Design)

ENTRY REQUIREMENTS: Successful completion of Year 10 Design and Visual Communication.

COURSE COSTS	LEADS INTO
\$140	AS Design & Technology (Spatial Design)

COURSE DESCRIPTION

IGCSE Level Consists of two components:

Design Portfolio: The portfolio centres around a spatial design and is completed in class, this is weighted at 50% of the overall grade. Candidates are required to identify a need or opportunity and follow the design process to produce a resolved outcome. Candidates write their own brief, undergo appropriate research, generate concepts using drawing including Computer Aided Design and Manufacturing techniques and creating a final model to be exhibited to an audience.

Examinations: There are two written paper examinations which are combined to form the remaining 50% of candidate's overall grade. Paper 1 tests candidates design thinking and knowledge. Paper 2 tests Graphic Products techniques and knowledge. Candidates are required to complete short written answers with design sketches.

A personal laptop with the system requirements to run the modelling program, Sketch-Up, is required for this course.

Harvard Computer Science Online Course (CS50x)

ENTRY REQUIREMENTS: by application to Mr Bridges. Up-to-date laptop for online access and completion of projects.

COURSE COSTS	LEADS INTO
Nil	N/A – this is a one-year Non Cambridge course, i.e. it DOES NOT count towards Cambridge

COURSE DESCRIPTION

This is CS50x, Harvard University's introduction to the intellectual enterprises of computer science and the art of programming for majors and non-majors alike, with or without prior programming experience. An entry-level course taught by David J. Malan, CS50x teaches students how to think algorithmically and solve problems efficiently. Topics include abstraction, algorithms, data structures, encapsulation, resource management, security, software engineering, and web development. Languages include C, PHP, and JavaScript plus SQL, CSS, and HTML. Problem sets inspired by real-world domains of biology, cryptography, finance, forensics, and gaming.

Assessment: Students who earn a satisfactory score on 9 problem sets (i.e., programming assignments) and a final project will receive a certificate from HarvardX. This is a self-paced course – you may take CS50x on your own schedule but the course needs to be completed by the end of Term 4.

IGCSE COURSE PLANNER FOR:

IGCSE COMPULSORY SUBJECTS	
Subject 1	English
Subject 2	Mathematics
Subject 3	Theology & Philosophy
	Enter your first Science Option below:
Subject 4	
IGCSE OPTIONAL SUBJECTS	
Subject 1	
Subject 2	
Subject 3	

^{*}Students are able to choose up to 3 Science subjects. Please enter one as Subject 4 in Compulsory Subjects and enter another one or two as Optional Subjects.