

HURLSTONE AGRICULTURAL HIGH SCHOOL

# HSC ASSESSMENT SCHEDULE

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2017 - 2018



Issued October 2017

# YEAR 12 ASSESSMENT SCHEDULES 2017 – 2018

\*\*\*\*\* Please read document carefully \*\*\*\*\*

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# AGRICULTURE

## AGRICULTURE

### OUTCOMES

A student:

- H1.1 explains the influence of physical, biological, social, historical and economic factors on sustainable agricultural production
- H2.1 describes the inputs, processes and interactions of plant production systems
- H2.2 describes the inputs, processes and interactions of animal production systems
- H3.1 assesses the general business principles and decision-making processes involved in sustainable farm management and marketing of farm products
- H3.2 critically assesses the marketing of a plant OR animal product
- H3.3 critically examines the technologies and technological innovations employed in the production and marketing of agricultural products
- H3.4 evaluates the management of the processes in agricultural systems
- H4.1 justifies and applies appropriate experimental techniques, technologies, research methods and data presentation and analysis in relation to agricultural problems and situations
- H5.1 evaluates the impact of innovation, ethics and current issues on Australian agricultural systems

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4	Task 5
		Plant Experimental Design	Half Yearly	Research Assignment	Elective In-class Extended Response	Trial HSC Examination
	Outcomes	H2.1, H3.4 H4.1	H1.1, H2.1 H3.3, H3.4 H4.1, H5.1	H1.1, H2.1, H2.2, H3.1, H3.2, H3.3, H3.4,H5.1	H3.4, H4.1 H5.1	H1.1, H2.1, H2.2, H3.1, H3.2, H3.3, H3.4, H4.1, H5.1
Plant Production	50%	10%	15%			25%
Farm Product Study	30%			25%		5%
Elective	20%				15%	5%
<b>TOTAL</b>	<b>100%</b>	<b>10%</b>	<b>15%</b>	<b>25%</b>	<b>15%</b>	<b>35%</b>

# ENGLISH

## ENGLISH ADVANCED

### OUTCOMES

A student:

- 1 explains and evaluates the effects of different contexts of responders and composers on texts.
- 2 explains relationships among texts.
- 2A recognises different ways in which particular texts are valued.
- 3 develops language relevant to the study of English.
- 4 explains and analyses the ways in which language forms and features, and structures of texts shape meaning and influence responses.
- 5 explains and evaluates the effects of textual forms, technologies and their media of production on meaning.
- 6 engages with the details of text in order to respond critically and personally.
- 7 adapts and synthesises a range of textual features to explore and communicate information, ideas and values for a variety of purposes, audiences and contexts.
- 8 articulates and represents own ideas in critical, interpretive and imaginative texts from a range of perspectives.
- 9 evaluates the effectiveness of a range of processes and technologies for various learning purposes including the investigation and organisation of information and ideas.
- 10 analyses and synthesises information and ideas into sustained and logical argument for a range of purposes, audiences and contexts.
- 11 draws upon the imagination to transform experience and ideas into texts demonstrating control of language.
- 12 reflects on own processes of responding and composing.
- 12A explains and evaluates different ways of responding to and composing texts.
- 13 reflects on own processes of learning.

Components (syllabus)	Weighting (syllabus)	Task 1	Task 2		Task 3	Task 4	Task 5
		Speaking/ Representing/ Reflection	Writing/ Viewing	Reading/ Writing	Listening	Writing	Reading & Writing
		Oral + reflection	Half-Yearly Examination		Written	In-Class	Trial HSC Exam
	Outcomes	8, 9, 10,12,13	1, 2A, 4	7, 8,11	2, 3, 5, 6	3, 4, 12A	1-12
<b>Area of Study</b>	<b>40%</b>	<b>15%</b>		<b>15%</b>			<b>10%</b>
<b>Module A</b>	<b>20%</b>		<b>15%</b>				<b>5%</b>
<b>Module B</b>	<b>20%</b>					<b>15%</b>	<b>5%</b>
<b>Module C</b>	<b>20%</b>				<b>15%</b>		<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>25%</b>

# ENGLISH

## ENGLISH STANDARD

### OUTCOMES

A student:

- 1 demonstrates understanding of how relationships between composer, responder, text and context shape meaning.
- 2 demonstrates understanding of the relationships among texts.
- 3 develops language relevant to the study of English.
- 4 describes and analyses the ways that language forms and features, and structures of texts shape meaning and influence responses.
- 5 analyses the effect of technology and medium on meaning.
- 6 engages with the details of text in order to respond critically and personally.
- 7 adapts and synthesises a range of textual features to explore and communicate information, ideas and values for a variety of purposes, audiences and contexts.
- 8 articulates and represents own ideas in critical, interpretive and imaginative texts from a range of perspectives.
- 9 assesses the appropriateness of a range of processes and technologies in the investigation and organisation of information and ideas.
- 10 analyses and synthesises information and ideas into sustained and logical argument for a range of purposes and audiences.
- 11 draws upon the imagination to transform experience and ideas into text, demonstrating control of language.
- 12 reflects on own processes of responding and composing.
- 13 reflects on own processes of learning.

Components (syllabus)	Weighting (syllabus)	Task 1	Task 2		Task 3	Task 4	Task 5
		Speaking/ Representing/ Reflection	Writing/ Viewing	Reading	Listening	Writing	Reading & Writing
		Oral + reflection	Half-Yearly Examination		Written	In-class	Trial HSC Exam
Outcomes	8, 9, 10, 12,13	1, 3, 4, 6	7, 8, 11	1, 2, 8, 10	3, 4, 5, 9	1-12	
<b>Area of Study</b>	<b>40%</b>	<b>15%</b>		<b>15%</b>			<b>10%</b>
<b>Module A</b>	<b>20%</b>		<b>15%</b>				<b>5%</b>
<b>Module B</b>	<b>20%</b>				<b>15%</b>		<b>5%</b>
<b>Module C</b>	<b>20%</b>					<b>15%</b>	<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>25%</b>

# ENGLISH

## ENGLISH EXTENSION 1

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### OUTCOMES

A student:

- 1 distinguishes and evaluates the values expressed through texts.
- 2 explains different ways of valuing texts.
- 3 composes extended texts.
- 4 develops and delivers sophisticated presentations.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3
		Reading/Writing/ Viewing	Listening / Speaking / Writing Representing	Reading / Writing
		Written Response	Seminar + commentary	Trial HSC Examination
Outcomes		1, 2, 3	1, 2, 4	1-4
Knowledge and understanding in texts and how / why they are valued	25%	5%	10%	10%
Skills in: Analysis, Composition and Investigation	25%	10%	10%	5%
<b>TOTAL</b>	<b>50%</b>	<b>15%</b>	<b>20%</b>	<b>15%</b>

# ENGLISH

## ENGLISH EXTENSION 2

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### OUTCOMES

A student:

- 1 develops and presents an extended composition that demonstrates depth, insight, originality and skills in independent investigation.
- 2 reflects on and documents own process of composition.

Components (syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3
		Viva Voce	Report	Draft of Major Work
		Interview	Written Report	Written Report
<b>Objective 1 Skills in extensive independent investigation</b>	<b>25</b>	<b>5</b>	<b>10</b>	<b>10</b>
<b>Objective 2 Skills in sustained composition</b>	<b>25</b>	<b>5</b>	<b>5</b>	<b>15</b>
<b>TOTAL (Out of 50)</b>	<b>50</b>	<b>10</b>	<b>15</b>	<b>25</b>

There will be three internal assessment tasks: a Viva Voce addressing the proposal for the Major Work worth 10 marks, a report on the impact of independent investigation on the development of the Major Work worth 15 marks and a draft version of the Major Work, including a reflection on progress, worth 25 marks.

Students will also be required to submit their Major Work Journal to their teacher at least three times at key points during the course.

# HSIE

## ANCIENT HISTORY

### OUTCOMES

A student develops the skills to:

- H1.1 describe and assess the significance of key people, groups, events, institutions, societies and sites within the historical context
- H2.1 explain historical factors and assess their significance in contributing to change and continuity in the ancient world
- H3.1 locate, select and organise relevant information from a variety of sources
- H3.2 discuss relevant problems of sources for reconstructing the past
- H3.3 analyse and evaluate sources for their usefulness and reliability
- H3.4 explain and evaluate differing perspectives and interpretations of the past
- H3.5 analyse issues relating to ownership and custodianship of the past
- H3.6 plan and present the findings of historical investigations, analysing and synthesising information from a range of sources
- H4.1 use historical terms and concepts appropriately
- H4.2 communicate knowledge and understanding of historical features and issues using appropriate oral and written forms

Components (syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Research Essay	Half Yearly Examination	Research and Oral Presentation	Trial HSC Examination
Outcomes		H1.1, H2.1, H3.2 H3.3, H3.6, H4.1	H1.1, H2.1, H3.1 H3.3, H3.4, H4.1	H1.1, H2.1, H3.1 H3.3, H3.4, H3.6, H4.2	H1.1, H2.1, H3.2, H4.1, H4.2
<b>Knowledge &amp; Understanding Course Content</b>	<b>40%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>
<b>Source-Based Skills Analysis Synthesis &amp; Evaluation of Information from Sources</b>	<b>20%</b>	<b>5%</b>	<b>5%</b>		<b>10%</b>
<b>Historical Inquiry &amp; Research</b>	<b>20%</b>	<b>10%</b>		<b>10%</b>	
<b>Communication of Historical Understanding in Appropriate Forms</b>	<b>20%</b>	<b>5%</b>		<b>10%</b>	<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>30%</b>	<b>15%</b>	<b>30%</b>	<b>25%</b>



# HSIE

## HISTORY EXTENSION

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### OUTCOMES

A student:

- E1.1 analyses and evaluates different historical perspectives and approaches to history and the interpretations developed from these perspectives and approaches
- E2.1 plans, conducts and presents a substantial historical investigation involving analysis, synthesis and evaluation of information from historical sources of differing perspectives and historical approaches
- E2.2 communicates through detailed, well-structured texts to explain, argue, discuss, analyse and evaluate historical issues
- E2.3 constructs a historical position about an area of historical inquiry and discusses and challenges other positions

Components (syllabus)	Weighting (Syllabus)	Task 1	Task 2
		History Project - Proposal - Sign offs - Essay	Trial HSC Examination
		Term 1-3	Term 3
Outcomes	E1.1, E2.1, E2.2, E2.3	E1.1, E2.2, E2.3	
<b>Knowledge &amp; Understanding of Significant Historical Ideas &amp; Processes</b>	<b>10</b>		<b>10</b>
<b>Skills in Designing, Undertaking &amp; Communicating Historical Inquiry – the History Project</b>	<b>40</b>	<b>40</b>	
<b>TOTAL (Out of 50)</b>	<b>50</b>	<b>40</b>	<b>10</b>

# HSIE

## MODERN HISTORY

### OUTCOMES

A student develops the skills to:

- H1.1 describe the role of key features, issues, individuals, groups and events of selected twentieth-century studies
- H1.2 analyse and evaluate the role of key features, issues, individuals, groups and events of selected twentieth-century studies
- H2.1 explain forces and ideas and assess their significance in contributing to change and continuity during the twentieth century
- H3.1 ask relevant historical questions
- H3.2 locate, select and organise relevant information from different types of sources
- H3.3 analyse and evaluate sources for their usefulness and reliability
- H3.4 explain and evaluate differing perspectives and interpretations of the past
- H3.5 plan and present the findings of historical investigations, analysing and synthesising information from different types of sources
- H4.1 use historical terms and concepts appropriately
- H4.2 communicate a knowledge and understanding of historical features and issues, using appropriate and well-structured oral and written forms

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		WWI	National/ Personality Study	International Study in Peace & Conflict	All Topics
		Source Analysis	Writing Task Extended Response	Oral Presentation & Source Analysis	Trial HSC Examination
Outcomes	H1.1, H1.2, H3.3, H3.4, H4.2	H1.1, H1.2, H2.1, H3.1, H3.4, H4.1, H4.2	H1.1, H1.2, H2.1, H3.2, H3.3, H3.4, H3.5, H4.2	H1.1, H1.2, H2.1, H3.3, H3.4, H4.1, H4.2	
<b>Knowledge &amp; Understanding of Content</b>	<b>40%</b>	<b>10%</b>	<b>10%</b>		<b>20%</b>
<b>Source-Based Skills</b>	<b>20%</b>	<b>10%</b>		<b>5%</b>	<b>5%</b>
<b>Historical Inquiry &amp; Research</b>	<b>20%</b>			<b>20%</b>	
<b>Communication of Historical Understanding in Appropriate Forms</b>	<b>20%</b>		<b>10%</b>	<b>5%</b>	<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>20%</b>	<b>20%</b>	<b>30%</b>	<b>30%</b>

# HSIE

## BUSINESS STUDIES

### OUTCOMES

A student:

- H1 critically analyses the role of business in Australia and globally
- H2 evaluates management strategies in response to changes in internal and external influences
- H3 discusses the social and ethical responsibilities of management
- H4 analyses business functions and processes in large and global businesses
- H5 explains management strategies and their impact on businesses
- H6 evaluates the effectiveness of management in the performance of businesses
- H7 plans and conducts investigations into contemporary business issues
- H8 organises and evaluates information for actual and hypothetical business situations
- H9 communicates business information, issues and concepts in appropriate formats
- H10 applies mathematical concepts appropriately in business situations

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Operations Extended Response	Half Yearly Examination	Finance Business Report	Trial HSC Examination
Outcomes		H4, H6, H7, H8, H9	H1, H2, H3, H4, H5, H6, H9	H4, H5, H7, H8, H9	H1, H2, H3, H4, H5, H6, H8, H9, H10
Knowledge & Understanding of Course Content	40%	10%	10%	5%	15%
Stimulus – Based Skills	20%		5%	5%	10%
Inquiry & Research	20%	10%		10%	
Communication of Business Information, Ideas & Issues in Appropriate Forms	20%	5%	5%	5%	5%
<b>TOTAL</b>	<b>100%</b>	<b>25%</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>

# HSIE

## ECONOMICS

### OUTCOMES

A student:

- H1 demonstrates understanding of economic terms, concepts and relationships
- H2 analyses the economic role of individuals, firms, institutions and governments
- H3 explains the role of markets within the global economy
- H4 analyses the impact of global markets on the Australian and global economies
- H5 discusses policy options for dealing with problems and issues in contemporary and hypothetical contexts
- H6 analyses the impact of economic policies in theoretical and contemporary Australian contexts
- H7 evaluates the consequences of contemporary economic problems and issues on individuals, firms and governments
- H8 applies appropriate terminology, concepts and theories in contemporary and hypothetical economic contexts
- H9 selects and organises information from a variety of sources for relevance and reliability
- H10 communicates economic information, ideas and issues in appropriate forms
- H11 applies mathematical concepts in economic contexts
- H12 works independently and in groups to achieve appropriate goals in set timelines

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Research Extended Response: Global Economy & Economic Issues	Half Yearly Examination	Economic Policies & Management: Research, Interpretation, Application & Communication	Trial HSC Examination
	Outcomes	H1, H3, H4, H7, H8, H9, H10, H11, H12	H1, H2, H3, H4, H6, H7, H8, H10, H11	H1, H2, H5, H6, H7, H8, H9, H10, H12	H1, H2, H3, H4, H5, H6, H7, H8, H10, H11
<b>Knowledge &amp; Understanding of Course Content</b>	<b>40%</b>	<b>10%</b>	<b>5%</b>	<b>10%</b>	<b>15%</b>
<b>Stimulus – Based Skills</b>	<b>20%</b>		<b>10%</b>		<b>10%</b>
<b>Inquiry &amp; Research</b>	<b>20%</b>	<b>10%</b>		<b>10%</b>	
<b>Communication of Economic Information, Ideas, Issues in Appropriate Forms</b>	<b>20%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>25%</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>

# HSIE

## LEGAL STUDIES

### OUTCOMES

A student:

- H1 identifies and applies legal concepts and terminology
- H2 describes and explains key features of and the relationship between Australian and international law
- H3 analyses the operation of domestic and international legal systems
- H4 evaluates the effectiveness of the legal system in addressing issues
- H5 explains the role of law in encouraging co-operation and resolving conflict, as well as initiating and responding to change
- H6 assesses the nature of the inter-relationship between the legal system and society
- H7 evaluates the effectiveness of the law in achieving justice
- H8 locates, selects, organises, synthesises and analyses legal information from a variety of sources including legislation, cases, media, international instruments and documents
- H9 communicates legal information using well-structured and logical arguments
- H10 analyses differing perspectives and interpretations of legal information and issues

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Depth Option 1 Contemporary Issue Investigation	Half Yearly Examination	Depth Option 2 Extended Response	All Topics
	Term 4, 2017	Term 1	Term 2	Trial HSC Examination	
Outcomes	H2, H3, H4, H7, H8, H10	H1, H2, H3, H4, H6, H7, H8, H9	H2, H4, H5, H6, H7 H8, H9, H10	H1, H2, H3, H4, H5, H6, H7, H9	
Knowledge & Understanding of Course Content	60%	5%	20%	10%	25%
Research	20%	10%		10%	
Communication	20%	5%	5%	5%	5%
<b>TOTAL</b>	<b>100%</b>	<b>20%</b>	<b>25%</b>	<b>25%</b>	<b>30%</b>

# HSIE

## SOCIETY AND CULTURE

### OUTCOMES

A student:

- H1 evaluates and effectively applies social and cultural concepts
- H2 explains the development of personal, social and cultural identity
- H3 analyses relationships and interactions within and between social and cultural groups
- H4 assesses the interaction of personal experience and public knowledge in the development of social and cultural literacy
- H5 analyses continuity and change and their influence on personal and social futures
- H6 evaluates social and cultural research methods for appropriateness to specific research tasks
- H7 selects, organises, synthesises and analyses information from a variety of sources for usefulness, validity and bias
- H8 uses planning and review strategies to conduct ethical social and cultural research that is appropriate for tasks ranging from the simple to the complex
- H9 applies complex course language and concepts appropriate for a range of audiences and contexts
- H10 communicates complex information, ideas and issues using appropriate written, oral and graphic forms

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Research and report: Social and Cultural Continuity and Change	Oral task and / or written submission Research & Methodology	Research and related in-class extended response on Depth Study 2	Trial HSC Examination
		Term 4, 2017	Late Term 1	Mid Term 2	Term 3
Outcomes	H6, H7, H9, H10	H1, H2, H5, H9, H10	H3, H4, H6, H7, H8, H9, H10	H1, H2, H3, H4, H5, H6, H7, H10	
Knowledge and understanding of course content	50%	5%	10%	10%	25%
Application and evaluation of social and cultural research methods	30%	10%	5%	10%	5%
Communication of information, ideas and issues in appropriate forms	20%	5%	5%	5%	5%
<b>TOTAL</b>	<b>100%</b>	<b>20%</b>	<b>20%</b>	<b>25%</b>	<b>35%</b>

# HSIE

## STUDIES OF RELIGION (1 UNIT)

### OUTCOMES

A student:

- H1 explains aspects of religion and belief systems
- H2 describes and analyses the influence of religion and belief systems on individuals and society
- H3 examines the influence and expression of religion and belief systems in Australia
- H4 describes and analyses how aspects of religious traditions are expressed by their adherents
- H5 evaluates the influence of religious traditions in the life of adherents
- H6 organises, analyses and synthesises relevant information about religion from a variety of sources, considering usefulness, validity and bias
- H7 conducts effective research about religion and evaluates the findings from the research
- H8 applies appropriate terminology and concepts related to religion and belief systems
- H9 coherently and effectively communicates complex information, ideas and issues using appropriate written, oral and graphic forms.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3
		Religious Tradition Study 1 Report Task	Religious Tradition Study 2 Viva Voce	Trial HSC Examination
		Term 4, 2017	Early Term 2	Term 3
Outcomes	H1, H2, H6, H7, H8, H9	H3, H4, H5, H6, H7, H8, H9	H1, H2, H3, H4, H5, H6, H8, H9	
Knowledge and understanding of course content	20	5	5	10
Source-based skills	10		5	5
Investigation and research	10	5	5	
Communication of information, ideas and issues in appropriate forms	10	5		5
<b>TOTAL (Out of 50)</b>	<b>50</b>	<b>15</b>	<b>15</b>	<b>20</b>

# SCIENCE

## BIOLOGY

### OUTCOMES

A student:

- H1 evaluates how major advances in scientific understanding and technology have changed the direction or nature of scientific thinking
- H2 analyses the ways in which models, theories and laws in biology have been tested and validated
- H3 assesses the impact of particular advances in biology on the development of technologies
- H4 assesses the impacts of applications of biology on society and the environment
- H5 identifies possible future directions of biological research
- H6 explains why the biochemical processes that occur in cells are related to macroscopic changes in the organism
- H7 analyses the impact of natural and human processes on biodiversity
- H8 evaluates the impact of human activity on the interactions of organisms and their environment
- H9 describes the mechanisms of inheritance in molecular terms
- H10 describes the mechanisms of evolution and assesses the impact of human activity on evolution
- H11 justifies the appropriateness of a particular investigation plan
- H12 evaluates ways in which accuracy and reliability could be improved in investigations
- H13 uses terminology and reporting styles appropriately and successfully to communicate information and understanding
- H14 assesses the validity of conclusions from gathered data and information
- H15 explains why an investigation is best undertaken individually or by a team
- H16 justifies positive values about and attitudes towards both the living and non-living components of the environment, ethical behaviour and a desire for a critical evaluation of the consequences of the applications of science

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2a	Task 2b	Task 3	Task 4
		Research / Processing Information	Half Yearly Practical and Processes	Half Yearly Knowledge & Scientific Thinking/ Problem Solving	Practical and Processing	Trial HSC
		H3, H4, H5, H7, H8, H12, H13, H16	H2, H6, H9, H11-14	H1, H2, H3, H4, H5, H6, H9, H10	H11-H15	H1-15*
<b>Knowledge and Understanding</b>	<b>40%</b>	<b>10%</b>		<b>10%</b>		<b>20%</b>
<b>First-hand Investigations/ Processing Information</b>	<b>30%</b>	<b>5%</b>	<b>5%</b>		<b>15%</b>	<b>5%</b>
<b>Scientific Thinking/ Problem Solving/ Communication</b>	<b>30%</b>		<b>10%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>20%</b>	<b>35%</b>

\* Not all this group of outcomes will necessarily be assessed in this task. Students will be advised of the specific outcomes in the individual assessment notice.

+ Half yearly exam paper will be broken into two separate sections for assessment.



# SCIENCE

## CHEMISTRY

### OUTCOMES

A student:

- H1 evaluates how major advances in scientific understanding and technology have changed the direction or nature of scientific thinking
- H2 analyses the ways in which models, theories and laws in chemistry have been tested and validated
- H3 assesses the impact of particular advances in chemistry on the development of technologies
- H4 assesses the impacts of applications of chemistry on society and the environment
- H5 describes possible future directions of chemical research
- H6 explains reactions between elements and compounds in terms of atomic structures and periodicity
- H7 describes the chemical basis of energy transformations in chemical reactions
- H8 assesses the range of factors which influence the type and rate of chemical reactions
- H9 describes and predicts reactions involving carbon compounds
- H10 analyses stoichiometric relationships
- H11 justifies the appropriateness of a particular investigation plan
- H12 evaluates ways in which accuracy and reliability could be improved in investigations
- H13 uses terminology and reporting styles appropriately and successfully to communicate information and understanding
- H14 assesses the validity of conclusions from gathered data and information
- H15 explains why an investigation is best undertaken individually or by a team
- H16 justifies positive values about and attitude towards both the living and non-living components of the environment, ethical behaviour and a desire for critical evaluation of the consequences of the applications of science

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2a	Task 2b	Task3	Task 4
		Research / Processing Information	Half Yearly Practical and Processes	Half Yearly Knowledge and Scientific Thinking/ Problem Solving	Practical and Processing	Trial HSC
		H1, H3, H4, H5, H8, H12, H13, H14	H2, H6, H9, H10, H11-14	H1, H2, H3, H4, H5, H6, H7, H8, H9, H10	H10-H15	H1-15*
<b>Knowledge and Understanding</b>	<b>40%</b>	<b>10%</b>		<b>10%</b>		<b>20%</b>
<b>First-hand Investigations/ Processing Information</b>	<b>30%</b>	<b>5%</b>	<b>5%</b>		<b>15%</b>	<b>5%</b>
<b>Scientific Thinking/ Problem Solving/ Communication</b>	<b>30%</b>		<b>10%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>20%</b>	<b>35%</b>

\* Not all this group of outcomes will necessarily be assessed in this task. Students will be advised of the specific outcomes in the individual assessment notice.

+ Half yearly exam paper will be broken into two separate sections for assessment.

# SCIENCE

## PHYSICS

### OUTCOMES

A Student:

- H1 evaluates how major advances in scientific understanding and technology have changed the direction or nature of scientific thinking
- H2 analyses the ways in which models, theories and laws in physics have been tested and validated
- H3 assesses the impact of particular advances in physics on the development of technologies
- H4 assesses the impacts of applications of physics on society and the environment
- H5 identifies possible future directions of physics research
- H6 explains events in terms of Newton's Laws, Law of Conservation of Momentum and relativity
- H7 explains the effects of energy transfers and energy transformations
- H8 analyses wave interactions and explains the effects of those interactions
- H9 explains the effects of electric, magnetic and gravitational fields
- H10 describes the nature of electromagnetic radiation and matter in terms of the particles
- H11 justifies the appropriateness of a particular investigation plan
- H12 evaluates ways in which accuracy and reliability could be improved in investigations
- H13 uses terminology and reporting styles appropriately and successfully to communicate information and understanding
- H14 assesses the validity of conclusions from gathered data and information
- H15 explains why an investigation is best undertaken individually or by a team
- H16 justifies positive values about and attitude towards both the living and non-living components of the environment, ethical behaviour and a desire for critical evaluation of the consequences of the applications of science

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2a	Task 2b	Task 3	Task 4
		Research / Processing Information	Half Yearly Practical and Processes	Half Yearly Knowledge and Scientific Thinking/ Problem Solving	Practical and Processing	Trial HSC
		H1, H3, H4, H7, H8, H12, H13, H14	H2, H6, H9, H11-14	H1, H2, H3, H4, H5, H6, H9, H10	H11-H15	H1-15*
<b>Knowledge and Understanding</b>	<b>40%</b>	<b>10%</b>		<b>10%</b>		<b>20%</b>
<b>First-hand Investigations/ Processing Information</b>	<b>30%</b>	<b>5%</b>	<b>5%</b>		<b>15%</b>	<b>5%</b>
<b>Scientific Thinking/ Problem Solving/ Communication</b>	<b>30%</b>		<b>10%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>20%</b>	<b>35%</b>

\* Not all this group of outcomes will necessarily be assessed in this task. Students will be advised of the specific outcomes in the individual assessment notice.

+ Half yearly exam paper will be broken into two separate sections for assessment.

# SCIENCE

## SENIOR SCIENCE

### OUTCOMES

A student:

- H1 discusses advances in scientific understanding and technology that have changed the direction or nature of scientific thinking
- H2 applies the processes that are used to test and validate models, theories and laws, to investigations
- H3 assesses the contribution of scientific advances on the development of technologies
- H4 assesses the impacts of applications of science on society and the environment
- H5 describes possible future directions of scientific research
- H6 describes uses of the Earth's resources
- H7 identifies effects of internal and external environmental changes on the human body
- H8 relates the properties of chemicals to their use
- H9 relates the structure of body organs and systems to their function
- H10 discusses ways in which different forms of energy and energy transfers and transformations are used
- H11 justifies the appropriateness of a particular investigation plan
- H12 evaluates ways in which accuracy and reliability could be improved in investigations
- H13 uses terminology and reporting styles appropriately and successfully to communicate information and understanding
- H14 assesses the validity of conclusions from gathered data and information
- H15 explains why an investigation is best undertaken individually or by a team
- H16 justifies positive values about and attitudes towards both the living and non-living components of the environment, ethical behaviour and a desire for a critical evaluation of the consequences of the applications of science

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2a	Task2b	Task 3	Task 4
		Research / Processing Information	Half Yearly Practical and Processes	Half Yearly Knowledge & Scientific Thinking/ Problem Solving	Practical and Processing	Trial HSC
		H1, H3, H4, H7, H8, H12, H13, H14	H2, H6, H9, H11-14	H1, H2, H3, H4, H5, H6, H9, H10	H11-H15	H1-15*
<b>Knowledge and Understanding</b>	<b>40%</b>	<b>10%</b>		<b>10%</b>		<b>20%</b>
<b>First-hand Investigations/ Processing Information</b>	<b>30%</b>	<b>5%</b>	<b>5%</b>		<b>15%</b>	<b>5%</b>
<b>Scientific Thinking/ Problem Solving/ Communication</b>	<b>30%</b>		<b>10%</b>	<b>5%</b>	<b>5%</b>	<b>10%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>15%</b>	<b>20%</b>	<b>35%</b>

\* Not all this group of outcomes will necessarily be assessed in this task. Students will be advised of the specific outcomes in the individual assessment notice.

+ Half yearly exam paper will be broken into two separate sections for assessment.

# VISUAL ARTS

## VISUAL ARTS

### OUTCOMES

A student:

- H1 initiates and organises artmaking practice that is sustained, reflective and adapted to suit particular conditions
- H2 applies their understanding of the relationships among the artist, artwork, world and audience through the making of a body of work
- H3 demonstrates an understanding of the frames when working independently in the making of art
- H4 selects and develops subject matter and forms in particular ways as representations in art making
- H5 demonstrates conceptual strength in the production of a body of work that exhibits coherence and may be interpreted in a range of ways
- H6 demonstrates technical accomplishment, refinement and sensitivity appropriate to the artistic intentions within a body of work
- H7 applies their understanding of practice in art criticism and art history
- H8 applies their understanding of the relationships among the artist, artwork, world and audience
- H9 demonstrates an understanding of how the frames provide for different orientations to critical and historical investigations of art
- H10 constructs a body of significant art histories, critical narratives and other documentary accounts of representation in the visual arts

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Research	BOW +VAPD	Trial HSC Examination	BOW Final
	Outcomes	H7, H8, H9, H10	H1, H2, H3, H4, H5, H6	H7, H8, H9, H10	H1, H2, H3, H4, H5, H6
<b>Art History &amp; Criticism</b>	<b>50%</b>	<b>15%</b>		<b>35%</b>	
<b>Art Making</b>	<b>50%</b>		<b>20%</b>		<b>30%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>20%</b>	<b>35%</b>	<b>30%</b>

# TAS

## ENGINEERING STUDIES

### OUTCOMES

A student:

- H1.1 describes the scope of engineering and critically analyses current innovations
- H1.2 differentiates between properties of materials and justifies the selection of materials, components and processes in engineering
- H2.1 determines suitable properties, uses and applications of materials in engineering
- H2.2 analyses and synthesises engineering applications in specific fields and reports on the importance of these to society
- H3.1 demonstrates proficiency in the use of mathematical, scientific and graphical methods to analyse and solve problems of engineering practice
- H3.2 uses appropriate written, oral and presentation skills in the preparation of detailed engineering reports
- H3.3 develops and uses specialised techniques in the application of graphics as a communication tool
- H4.1 investigates the extent of technological change in engineering
- H4.2 applies knowledge of history and technological change to engineering-based problems
- H4.3 appreciates social, environmental and cultural implications of technological change in engineering and applies them to the analysis of specific problems
- H5.1 works individually and in teams to solve specific engineering problems and in the preparation of engineering reports
- H5.2 selects and uses appropriate management and planning skills related to engineering
- H6.1 demonstrates skills in research and problem-solving related to engineering
- H6.2 demonstrates skills in analysis, synthesis and experimentation related to engineering

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Research Task	Engineering Report - 1	Engineering Report - 2	Trial HSC Examination
		H1.2, H3.3, H4.2, H5.1, H6.1	H1.2, H2.1, H3.1, H3.2, H5.1, H6.1, H6.2	H1.2, H2.1, H3.1, H3.2, H5.1, H6.1, H6.2	H1.1, H1.2, H2.1, H2.2, H3.1, H3.3, H4.1, H4.2, H4.3, H5.2,
<b>Knowledge and understanding of engineering principles and developments in technology</b>	<b>50%</b>	<b>6%</b>	<b>12%</b>	<b>12%</b>	<b>20%</b>
<b>Skills in research, problem solving and communication related to engineering</b>	<b>30%</b>	<b>4%</b>	<b>10%</b>	<b>10%</b>	<b>6%</b>
<b>Understanding the scope and the role of engineering including management and problem solving</b>	<b>20%</b>	<b>5%</b>	<b>3%</b>	<b>8%</b>	<b>4%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>25%</b>	<b>30%</b>	<b>30%</b>

# TAS

## DESIGN AND TECHNOLOGY

### OUTCOMES

A student:

- H1.1 critically analyses the factors affecting design and the development and success of design projects
- H1.2 relates the practices and processes of designers and producers to the major design project
- H2.1 explains the influence of trends in society on design and production
- H2.2 evaluates the impact of design and innovation on society and the environment
- H3.1 analyses the factors that influence innovation and the success of innovation
- H3.2 uses creative and innovative approaches in designing and producing
- H4.1 identifies a need or opportunity and researches and explores ideas for design development and production of the major design project
- H4.2 selects and uses resources responsibly and safely to realise a quality major design project
- H4.3 evaluates the processes undertaken and the impacts of the major design project
- H5.1 manages the development of a quality major design project
- H5.2 selects and uses appropriate research methods and communication techniques
- H6.1 justifies technological activities undertaken in the major design project through the study of industrial and commercial practices
- H6.2 critically assesses the emergence and impact of new technologies, and the factors affecting their development.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Project Proposal & Management Folio Presentation	Innovation Case Study	Research Task, Testing & Evaluation Presentation Process Diary	Trial HSC Examination
		H4.1 H4.2 H5.1 H5.2	H2.1 H2.2 H3.1 H5.2 H6.1 H6.2	H2.2 H3.1 H3.2 H6.2	H1.1 H1.2 H2.1 H2.2 H3.1 H4.1 H4.3 H6.1 H6.2
		Term 4 Week 7	Term 1 Week 6	Term 2 Week 8	Term 3 Trial Exam Period
Designing and Producing	<b>60%</b>	<b>10%</b>		<b>40%</b>	<b>10%</b>
Knowledge and skills in Innovation & Emerging Technologies	<b>40%</b>		<b>20%</b>		<b>20%</b>
<b>TOTAL</b>	<b>100%</b>	<b>10%</b>	<b>20%</b>	<b>40%</b>	<b>30%</b>

# MUSIC

## MUSIC 1

### OUTCOMES

Through activities in performance, composition, musicology and aural, a student:

- H1 performs stylistically, music that is characteristic of topics studied, both as a soloist and as a member of an ensemble
- H2 reads, interprets, discusses and analyses simple musical scores that are characteristic of the topics studied
- H3 improvises and composes music using the range of concepts for familiar sound sources reflecting the cultural and historical contexts studied
- H4 articulates an aural understanding of musical concepts and their relationships in a wide variety of musical styles
- H5 critically evaluates and discusses performances and compositions
- H6 critically evaluates and discusses the use of the concepts of music in works representative of the topics studied and through wide listening
- H7 understands the capabilities of performing media, incorporates technologies into composition and performance as appropriate to the topics studied
- H8 identifies, recognises, experiments with, and discusses the use and effects of technology in music
- H9 performs as a means of self-expression and communication
- H10 demonstrates a willingness to participate in performance, composition, musicology and aural activities
- H11 demonstrates a willingness to accept and use constructive criticism

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Composition*	Half Yearly Examination*	Elective Presentation*	Trial HSC Examination*
	Outcomes	H1, H2, H5, H6, H7, H8, H9, H10, H11	H4, H6, H7, H8, H10, H11	H3, H4, H5, H6, H7, H8, H10, H11	H2, H4, H5, H6, H8, H10, H11
<b>Performance Core</b>	<b>10%</b>		<b>5%</b>		<b>5%</b>
<b>Aural Skills Core</b>	<b>25%</b>		<b>10%</b>		<b>15%</b>
<b>Composition Core</b>	<b>10%</b>	<b>10%</b>			
<b>Musicology Core</b>	<b>10%</b>	<b>5%</b>		<b>5%</b>	
<b>Elective 1</b>	<b>15%</b>		<b>5%</b>	<b>5%</b>	<b>5%</b>
<b>Elective 2</b>	<b>15%</b>			<b>7.5%</b>	<b>7.5%</b>
<b>Elective 3</b>	<b>15%</b>			<b>7.5%</b>	<b>7.5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>20%</b>	<b>25%</b>	<b>40%</b>

*\* Not all outcomes will necessarily be assessed in this task. Students will be advised of the specific outcomes in the individual assessment notice.*

# MATHEMATICS

## GENERAL MATHEMATICS

### COMPONENTS

- A – Use of concepts, skills & techniques to solve mathematical problems & interpret practical situations. 50%
- B – Application of reasoning & communication in appropriate forms to construct mathematical arguments & to interpret & use mathematical models. 50%

Preliminary Mathematics General Outcomes	HSC Mathematics General 2 Outcomes
<p><b>A student:</b></p> <p>MGP-1 uses mathematics and statistics to compare alternative solutions to contextual problems</p> <p>MGP-2 represents information in symbolic, graphical and tabular form</p> <p>MGP-3 represents the relationships between changing quantities in algebraic and graphical form</p> <p>MGP-4 performs calculations in relation to two-dimensional and three-dimensional figures</p> <p>MGP-5 demonstrates awareness of issues in practical measurement, including accuracy, and the choice of relevant units</p> <p>MGP-6 models financial situations relevant to the student's current life using appropriate tools</p> <p>MGP-7 determines an appropriate form of organisation and representation of collected data</p> <p>MGP-8 performs simple calculations in relation to the likelihood of familiar events</p> <p>MGP-9 uses appropriate technology to organise information from a limited range of practical and everyday contexts</p> <p>MGP-10 justifies a response to a given problem using appropriate mathematical terminology</p> <p>MGP-VA develops a positive attitude to mathematics and appreciates its capacity to provide enjoyment and recreation</p>	<p><b>A student:</b></p> <p>MG2H-1 uses mathematics and statistics to evaluate and construct arguments in a range of familiar and unfamiliar contexts</p> <p>MG2H-2 analyses representations of data in order to make inferences, predictions and conclusions</p> <p>MG2H-3 makes predictions about situations based on mathematical models, including those involving cubic, hyperbolic or exponential functions</p> <p>MG2H-4 analyses two-dimensional and three-dimensional models to solve practical problems, including those involving spheres and non-right-angled triangles</p> <p>MG2H-5 interprets the results of measurements and calculations and makes judgements about reasonableness, including the degree of accuracy of measurements and calculations and the conversion to appropriate units</p> <p>MG2H-6 makes informed decisions about financial situations, including annuities and loan repayments</p> <p>MG2H-7 answers questions requiring statistical processes, including the use of the normal distribution, and the correlation of bivariate data</p> <p>MG2H-8 solves problems involving counting techniques, multistage events and expectation</p> <p>MG2H-9 chooses and uses appropriate technology to locate and organise information from a range of contexts</p> <p>MG2H-10 uses mathematical argument and reasoning to evaluate conclusions drawn from other sources, communicating a position clearly to others, and justifies a response</p> <p>MG2H-VA appreciates the importance of mathematics in everyday life and its usefulness in contributing to society</p>



## ASSESSMENT TASKS

This is a summary of the assessment plan for this course.

If a task does not discriminate adequately, a supplementary task may be set, with due notice given to students.

Where possible, the outcomes listed for each task will be assessed. If there is any change to the outcomes being assessed, students will be given due notice.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		In Class Test	Half Yearly Examination	In Class Test	Trial HSC Examination
	Outcomes	MGP2, MGP6, MGP7, MG2H2, MG2H3, MG2H6	MGP2, MGP6, MGP7, MGP8, MGP9, MGP10, MG2H2, MG2H3, MG2H4, MG2H5, MG2H6, MG2H7	MG2H2, MG2H3, MG2H6, MG2H7, MG2H10	MGP2, MGP4, MGP9, MGP10, MG2H2, MG2H3, MG2H4, MG2H5, MG2H6, MG2H7, MG2H8, MG2H9, MG2H10
<b>A</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>B</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>30%</b>	<b>15%</b>	<b>40%</b>

# MATHEMATICS

## MATHEMATICS & MATHEMATICS EXTENSION 1 COMMON

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### COMPONENTS

A –	Use of concepts, skills & techniques to solve mathematical problems & interpret practical situations.	50%
B –	Application of reasoning & communication in appropriate forms to construct mathematical arguments & interpret & use mathematical models.	50%

### OUTCOMES

A student:

- P1 demonstrates confidence in using mathematics to obtain realistic solutions to problems
- P2 provides reasoning to support conclusions which are appropriate to the context
- P3 performs routine arithmetic and algebraic manipulation involving surds, simple rational expressions and trigonometric identities
- P4 chooses and applies appropriate arithmetic, algebraic, graphical, trigonometric and geometric techniques
- P5 understands the concept of a function and the relationship between a function and its graph
- P6 relates the derivative of a function to the slope of its graph
- P7 determines the derivative of a function through routine application of the rules of differentiation
- P8 understands and uses the language and notation of calculus
  
- H1 seeks to apply mathematical techniques to problems in a wide range of practical context
- H2 constructs arguments to prove and justify results
- H3 manipulates algebraic expressions involving logarithmic and exponential functions
- H4 expresses practical problems in mathematical terms based on simple given models
- H5 applies appropriate techniques from the study of calculus, geometry, probability, trigonometry and series to solve problems
- H6 uses the derivative to determine the features of the graph of a function
- H7 uses the features of a graph to deduce information about the derivative
- H8 uses techniques of integration to calculate areas and volumes
- H9 communicates using mathematical language, notation, diagrams and graphs

## ASSESSMENT TASKS

This is a summary of the assessment plan for this course.

If a task does not discriminate adequately, a supplementary task may be set, with due notice given to students.

Where possible, the outcomes listed for each task will be assessed. If there is any change to the outcomes being assessed, students will be given due notice.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		In Class Test	Half Yearly Examination	In Class Test	Trial HSC Examination
	Outcomes	P4,P6,P7,P8 H2,H4,H5,H6	P2,P3,P4,P5,P6,P7, P8 H2,H4,H5,H6,H7,H9	H2,H3,H5,H8,H9	P2,P3,P4,P5,P6,P7, P8 H2,H3,H4,H5,H6,H7, H8,H9,H10
<b>A</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>B</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>30%</b>	<b>15%</b>	<b>40%</b>

# MATHEMATICS

## MATHEMATICS EXTENSION 1 ADDITIONAL

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### COMPONENTS

- |     |                                                                                                                                             |     |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------|-----|
| A – | Use of concepts, skills & techniques to solve mathematical problems & interpret practical situations.                                       | 50% |
| B – | Application of reasoning & communication in appropriate forms to construct mathematical arguments & to interpret & use mathematical models. | 50% |

### OUTCOMES

A student:

- PE1 appreciates the role of mathematics in the solution of practical problems
- PE2 uses multi-step deductive reasoning in a variety of contexts
- PE3 solves problems involving permutations and combinations, inequalities, polynomials, circle geometry and parametric representations
- PE4 uses the parametric representation together with differentiation to identify geometric properties of parabolas
- PE5 determines derivatives which require the application of more than one rule of differentiation
- PE6 makes comprehensive use of mathematical language, diagrams and notation for communicating in a wide variety of situations
  
- HE1 appreciates interrelationships between ideas drawn from different areas of mathematics
- HE2 uses inductive reasoning in the construction of proofs
- HE3 uses a variety of strategies to investigate mathematical models of situations involving binomial probability, projectiles, simple harmonic motion, or exponential growth and decay
- HE4 uses the relationship between functions, inverse functions and their derivatives
- HE5 applies the chain rule to problems including those involving velocity and acceleration as functions of displacement
- HE6 determines integrals by reduction to a standard form through a given substitution
- HE7 evaluates mathematical solutions to problems and communicates them in an appropriate form

## ASSESSMENT TASKS

This is a summary of the assessment plan for this course.

If a task does not discriminate adequately, a supplementary task may be set, with due notice given to students.

Where possible, the outcomes listed for each task will be assessed. If there is any change to the outcomes being assessed, students will be given due notice.

Components (Syllabus)	Breakdown	Task 1	Task 2	Task 3	Task 4
		In Class Test	Half Yearly Examination	In Class Test	Trial HSC Examination
	Outcomes	PE2, PE6 HE2, HE7	PE2, PE3, PE4, PE6, HE2, HE7	PE3, HE4, HE6	PE2, PE3, PE4, PE6, HE2, HE3, HE4, HE5, HE6, HE7
<b>A</b>	<b>25</b>	<b>3.75</b>	<b>7.5</b>	<b>3.75</b>	<b>10</b>
<b>B</b>	<b>25</b>	<b>3.75</b>	<b>7.5</b>	<b>3.75</b>	<b>10</b>
<b>TOTAL (Out of 50)</b>	<b>50</b>	<b>7.5</b>	<b>15</b>	<b>7.5</b>	<b>20</b>

# MATHEMATICS

## MATHEMATICS EXTENSION 1 / EXTENSION 2 COMMON

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### COMPONENTS

A –	Use of concepts, skills & techniques to solve mathematical problems & interpret practical situations.	50%
B –	Application of reasoning & communication in appropriate forms to construct mathematical arguments & to interpret & use mathematical models.	50%

### OUTCOMES

A student:

PE1	appreciates the role of mathematics in the solution of practical problems
PE2	uses multi-step deductive reasoning in a variety of contexts
PE3	solves problems involving permutations and combinations, inequalities, polynomials, circle geometry and parametric representations
PE4	uses the parametric representation together with differentiation to identify geometric properties of parabolas
PE5	determines derivatives which require the application of more than one rule of differentiation
PE6	makes comprehensive use of mathematical language, diagrams and notation for communicating in a wide variety of situations
HE1	appreciates interrelationships between ideas drawn from different areas of mathematics
HE2	uses inductive reasoning in the construction of proofs
HE3	uses a variety of strategies to investigate mathematical models of situations involving binomial probability, projectiles, simple harmonic motion, or exponential growth and decay
HE4	uses the relationship between functions, inverse functions and their derivatives
HE5	applies the chain rule to problems including those involving velocity and acceleration as functions of displacement
HE6	determines integrals by reduction to a standard form through a given substitution
HE7	evaluates mathematical solutions to problems and communicates them in an appropriate form

## ASSESSMENT TASKS

This is a summary of the assessment plan for this course.

If a task does not discriminate adequately, a supplementary task may be set, with due notice given to students.

Where possible, the outcomes listed for each task will be assessed. If there is any change to the outcomes being assessed, students will be given due notice.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		In Class Test	Half Yearly Examination	In Class Test	Trial HSC Examination
	Outcomes	PE2,PE6, HE2,HE7	PE2, PE3, PE4, PE6, HE2, HE7	PE3, HE4, HE6	PE2, PE3, PE4, PE6, HE2, HE3, HE4, HE5, HE6, HE7
<b>A</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>B</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>30%</b>	<b>15%</b>	<b>40%</b>

# MATHEMATICS

## MATHEMATICS EXTENSION 2 ADDITIONAL

### COMPONENTS

- A – Use of concepts, skills & techniques to solve mathematical problems & interpret practical situations . 50%
- B – Application of reasoning & communication in appropriate forms to construct mathematical arguments & to interpret & use mathematical models. 50%

### OUTCOMES

A student:

- E1 appreciates the creativity, power and usefulness of mathematics to solve a broad range of problems
- E2 chooses appropriate strategies to construct arguments and proofs in both concrete and abstract settings
- E3 uses the relationship between algebraic and geometric representations of complex numbers and of conic sections
- E4 uses efficient techniques for the algebraic manipulation required in dealing with questions such as those involving conic sections and polynomials
- E5 uses ideas and techniques from calculus to solve problems in mechanics involving resolution of forces, resisted motion and circular motion
- E6 combines the ideas of algebra and calculus to determine the important features of the graphs of a wide variety of functions
- E7 uses the techniques of slicing and cylindrical shells to determine volumes
- E8 applies further techniques of integration, including partial fractions, integration by parts and recurrence formulae, to problems
- E9 communicates abstract ideas and relationships using appropriate notation and logical argument

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4
		In Class Test	Half Yearly Examination	In Class Test	Trial HSC Examination
	Outcomes	E2, E3	E2, E3, E4, E9	E2, E6, E8	E2, E3, E4, E5, E6, E7, E8, E9
<b>A</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>B</b>	<b>50%</b>	<b>7.5%</b>	<b>15%</b>	<b>7.5%</b>	<b>20%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>30%</b>	<b>15%</b>	<b>40%</b>



# PDHPE

## PERSONAL DEVELOPMENT HEALTH AND PHYSICAL EDUCATION

### OUTCOMES

A student:

- H1 describes the nature, and justifies the choice, of Australia's health priorities
- H2 analyses and explains the health status of Australians in terms of current trends and groups most at risk
- H3 analyses the determinants of health and health inequalities
- H4 argues the case for the new public health approach to health promotion
- H5 explains the different roles and responsibilities of individuals, communities and governments in addressing Australia's health priorities
- H7 explains the relationship between physiology and movement potential
- H8 explains how a variety of training approaches and other interventions enhance performance and safety in physical activity
- H9 explains how movement skill is acquired and appraised
- H10 designs and implements training plans to improve performance
- H11 designs psychological strategies and nutritional plans in response to individual performance needs
- H13 selects and applies strategies for the management of injuries and the promotion of safety in sport and physical activity
- H14 argues the benefits of health-promoting actions and choices that promote social justice
- H15 critically analyses key issues affecting the health of Australian's and proposes ways of working toward better health for all
- H16 devises methods of gathering, interpreting and communicating information about health and physical activity concepts.
- H17 selects appropriate options and formulates strategies based on a critical analysis of the factors that affect performance and safe participation.

Components (Syllabus)	Weighting (Syllabus)	Task 1	Task 2	Task 3	Task 4	Task 5
		Health Research	Half Yearly Exam	Training Program	Sports Medicine Practical	Trial HSC Examination
Outcomes		H1, H2, H3, H16	H7, H8, H10, H11, H16, H17	H8, H10, H17	H8, H13, H16, H17	H1-H17
<b>Knowledge &amp; understanding of the factors that affect health &amp; the way the body moves.</b>	<b>40%</b>	<b>10%</b>	<b>10%</b>			<b>20%</b>
<b>Skills in influencing personal &amp; community health &amp; taking action to improve participation &amp; performance in physical activity.</b>	<b>30%</b>		<b>5%</b>	<b>10%</b>	<b>10%</b>	<b>5%</b>
<b>Skills in critical thinking, research &amp; analysis.</b>	<b>30%</b>	<b>10%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>	<b>5%</b>
<b>TOTAL</b>	<b>100%</b>	<b>20%</b>	<b>20%</b>	<b>15%</b>	<b>15%</b>	<b>30%</b>

# LOTE

## JAPANESE CONTINUERS

### OUTCOMES

A student:

- H1.1 uses a range of strategies to maintain communication
- H1.2 conveys information appropriate to context, purpose and audience
- H1.3 exchanges and justifies opinions and ideas
- H1.4 reflects on aspects of past, present and future experience
- H2.1 applies knowledge of language structures to create original text (written or spoken texts created by students incorporating their own ideas)
- H2.2 composes informative, descriptive, reflective, persuasive and evaluative texts appropriate to context, purpose and/or audience
- H2.3 structures and sequences ideas and information
- H3.1 conveys the gist of text and identifies specific information
- H3.2 summarises the main ideas
- H3.3 identifies the tone, purpose, context and audience
- H3.4 draws conclusions from or justifies an opinion
- H3.5 interprets, analyses and evaluates information
- H3.6 infers points of view, attitude or emotions from language and context
- H4.1 recognises and employs language appropriate to different social contexts
- H4.2 identifies values, attitudes and beliefs of cultural significance
- H4.3 reflects upon significant aspects of language and culture

Components (Syllabus)	Weightings (Syllabus)	Task 1	Task 2	Task 3	Task 4
		Reading Comprehension Task	Listening & Speaking Task	Half-Yearly Exam	Trial HSC Examination
	Outcomes	H1.1, H1.2, H1.3, H1.4, H3.1, H3.2, H3.3, H3.4, H3.5, H3.6	H1.1, H1.2, H1.3, H1.4, H3.1, H3.2, H3.3, H3.4, H3.5, H3.6, H4.1, H4.2, H4.3	H1.1, H1.2, H1.3, H1.4, H2.1, H2.2, H2.3, H3.1, H3.2, H3.3, H3.4, H3.5, H3.6, H4.1, H4.2, H4.3	H1.1, H1.2, H1.3, H1.4, H2.1, H2.2, H2.3, H3.1, H3.2, H3.3, H3.4, H3.5, H3.6, H4.1, H4.2, H4.3
<b>Speaking</b>	<b>20%</b>			<b>10%</b>	<b>10%</b>
<b>Listening &amp; Responding</b>	<b>25%</b>		<b>15%</b>		<b>10%</b>
<b>Reading &amp; Responding</b>	<b>40%</b>	<b>15%</b>		<b>15%</b>	<b>10%</b>
<b>Writing in Japanese</b>	<b>15%</b>			<b>5%</b>	<b>10%</b>
<b>TOTAL</b>	<b>100%</b>	<b>15%</b>	<b>15%</b>	<b>30%</b>	<b>40%</b>

# LOTE

## JAPANESE EXTENSION

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### OUTCOMES

A student:

- 1.1 Discusses attitudes, opinions and ideas in Japanese
- 1.2 Formulates and justifies a written or spoken argument in Japanese
- 2.1 Evaluates and responds to text personally, creatively and critically
- 2.2 Analyses how meaning is conveyed
- 2.3 Analyses the social, political, cultural and / or literary contexts of text that is in Japanese.

Components (Syllabus)	Weightings (Syllabus)	Task 1	Task 2
		Half yearly Examination	Trial HSC Examination
	Outcomes	H1.1, H1.2, H2.1, H2.2, H2.3	H1.1, H1.2, H2.1, H2.2, H2.3
Speaking Skills	10	5	5
Analysis of written text that is in Japanese	15	5	10
Response to written text that is in Japanese	10	5	5
Writing in Japanese	15	5	10
<b>TOTAL (Out of 50)</b>	<b>50</b>	<b>20</b>	<b>30</b>

