

**NSW SENIOR SECONDARY REVIEW &
EVALUATION:
ENGLISH, MATHEMATICS, SCIENCE
AND HISTORY
August 2014**

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Background

At its December 2013 meeting, the Board of Studies, Teaching and Educational Standards (BOSTES) NSW endorsed a review of Years 11 and 12 (senior secondary) syllabuses for English, Mathematics, Science and History to be undertaken in 2014 to include Australian curriculum content for these key learning areas on terms agreed by the Standing Council on School Education and Early Childhood (SCSEEC).

This paper provides an analysis of the current situation in these senior secondary courses in NSW. The analysis has drawn on consultation conducted in 2012 in relation to the senior secondary Australian curriculum, as well as Higher School Certificate (HSC) examinations data, correspondence received by the BOSTES and submissions about current course provisions.

The paper proposes specific directions for the revision of the various senior secondary syllabuses. BOSTES invites feedback on these proposals in order to shape the final directions for the review of senior secondary syllabuses for English, Mathematics, Science and History. Background information in relation to the review of the senior secondary syllabuses can be found in the reference reports for each learning area published on the BOSTES website (www.boardofstudies.nsw.edu.au/australian-curriculum/11-12-eng-maths-sci-hist.html). These reports do not form part of the consultation process.

Context

An understanding of the complex nature of learning and of the education landscape is intrinsic to the NSW senior secondary curriculum and to the structures that surround and support it. The NSW framework for senior secondary education recognises the multiple purposes of schooling at this level and the importance of learning within a 21st century context. This is reflected in the breadth and depth of specified knowledge, understanding and skills both within and across courses. The broader structure of the senior secondary curriculum in NSW is characterised by a strong alignment between curriculum, assessment and pedagogy.

The BOSTES ensures that the high quality of syllabus development is maintained and achievable timelines established through an approved syllabus development process. The process provides opportunities for broad consultation, including input from NSW stakeholders, academics, members of the teaching community and parent groups. A Board Curriculum Committee (BCC), representative of education sectors and key stakeholder groups, is established for a learning area or syllabus to monitor the progress of syllabus development.

The last significant review of the NSW senior secondary curriculum was in response to the release of the NSW Government's White Paper, *Securing Their Future* (1997), which included a set of criteria by which existing and proposed HSC courses were evaluated (see Appendix A). In light of these criteria, the White Paper provided advice on the suitability of existing courses for the HSC, the most appropriate course arrangement and the extent of revision required. The resulting new senior secondary curriculum adopted a standards-referenced approach to curriculum and assessment (including examinations and reporting) and was first examined for the 2001 HSC.

Since this review, BOSTES has amended some syllabuses to ensure they remain relevant and contemporary, and support the development of quality HSC examinations. A summary of syllabus review for the key learning areas of English, Mathematics, Science and History is provided in Table 1.

Following a major review of HSC assessment by the BOSTES in 2008–2009, changes to examination specifications and school assessment requirements were implemented for the majority of 2010 HSC courses. Assessment components and some examination specifications were adjusted to more closely align with course outcomes.

It is only in the case of the Mathematics learning area where a full syllabus development process has been undertaken (in 2007–2008). These syllabuses, however, were not adopted due to the impending development and subsequent release of the Australian curriculum.

Table 1: Year of last review of senior secondary English, Mathematics, Science and History courses

Syllabus	Revisions	Publication date
English Advanced English Standard English Extension 1 English Extension 2 English as a Second Language Fundamentals of English	Review of current English Prescriptions	2013
English Life Skills	Minor amendments to remove reference to 'special program of study'	2007
English Studies – pilot study	Revisions to modules and additional modules published	2010
General Mathematics	Development of Preliminary Mathematics General, HSC Mathematics General 1, HSC Mathematics General 2	2012
Mathematics/Mathematics Extension 1	Revised 2007–2008 but not implemented	
Mathematics Extension 2	Revised 2007–2008 but not implemented	
Mathematics Life Skills	Minor amendments to remove reference to 'special program of study'	2007
Biology Chemistry Earth and Environmental Science Physics Senior Science	Minor amendments to outcomes and content points in all syllabuses	2009
Science Life Skills	Minor amendments to remove reference to 'special program of study'	2007
Ancient History	Major amendments to course content. Original Ancient History course replaced	2004
Modern History	Major amendments to course content. Original Modern History course replaced	2004
History Extension	Nil – published 1999	
History Life Skills	Nil – published 2010	

NSW syllabuses for the Australian curriculum

The Australian Curriculum, Assessment and Reporting Authority (ACARA) has finalised curriculum for Foundation to Year 12 in English, Mathematics, Science and History. NSW K–10 syllabuses have been developed incorporating the Australian curriculum content in these subjects.

In 2011–2012, BOSTES officers and representatives from the education sectors worked closely with ACARA to provide feedback on the draft senior secondary curriculum for English, Mathematics, Science and History. In all, 14 senior secondary Australian curriculum courses have been published by ACARA in these learning areas.

State and territory education Ministers at the Standing Council on School Education and Early Childhood (SCSEEC) meeting in December 2012 endorsed these courses, agreeing that the senior secondary Australian curriculum represents the next step towards national consistency and provides a common base for the development of state and territory senior secondary courses. It was also agreed that due to the complex and varied structures currently existing for senior secondary curriculum, states and territories would have the flexibility to integrate the approved senior secondary Australian curriculum as appropriate and will continue to have responsibility for certification, assessment and examination requirements.

At its May 2013 meeting, the BOSTES considered an analysis of the Australian curriculum for English, Mathematics, Science and History. The report identified similarities and differences between the Australian curriculum and NSW curriculum in these learning areas, summarising conceptual issues that need to be addressed in order to integrate the Australian curriculum. In this analysis, NSW has been clear that using the senior secondary Australian curriculum as an agreed and common base:

- does not include achievement standards or assessment; the current HSC examination and assessment processes will be retained
- does not include unit values or time requirements; the Preliminary and HSC course unit values and time requirements will be maintained
- does not constitute the full range of NSW courses; the existing Extension courses, Content Endorsed Courses and Life Skills courses will be maintained
- may not include all content considered necessary by NSW
- may include content that will not be included by NSW.

In accordance with the agreement made by state and territory education Ministers, the BOSTES will continue to offer syllabuses in areas not covered by the senior secondary Australian curriculum and will review these syllabuses as part of the regular syllabus evaluation processes.

In 2014 NSW commenced the implementation of the new K–10 English, Mathematics, Science and History syllabuses, incorporating Australian curriculum. The development of new senior secondary syllabuses in these areas will strengthen the learning continuum in NSW from Year 10 into the Preliminary and HSC courses.

The revision of the NSW senior secondary curriculum for English, Mathematics, Science and History provides an opportunity for ensuring that the NSW curriculum remains relevant and contemporary, and that the credential awarded on completion of the senior years of schooling remains rigorous and of high quality.

Students with special education needs

The provision of curriculum for students with special education needs in the senior secondary years of schooling varies across Australian states and territories. The variation includes the number of courses offered, how they can be delivered and how they are accredited. There is, however, commonality in that courses tend to be more practical and skills-based with a focus on successful transition to the workplace and engagement in the broader community.

The BOSTES is committed to the development of inclusive syllabuses to enable every student to demonstrate achievement. The BOSTES acknowledges that most students with special education needs will access learning experiences based on the regular syllabus outcomes and content and may require additional support, including adjustments to teaching, learning and assessment activities. BOSTES provides advice to support teachers in making adjustments for students accessing regular outcomes and content.

In 1999 the BOSTES developed eight Life Skills courses for a small percentage of senior secondary students with intellectual disabilities in recognition of the principle that the post-compulsory years of schooling should cater for all students who choose to participate. This was a direct response to the NSW Government's White Paper, *Securing their Future* (1997). These courses have Board Developed status and can be used to meet the requirements for the award of the HSC. Life Skills courses provide greater flexibility for teachers as not all outcomes or content need to be addressed and there is no HSC examination. Currently, there are 26 senior secondary Life Skills courses available.

The development of the Australian curriculum has been shaped by the propositions that all students can learn and progress through the curriculum and that high expectations should be set for each student. The three-dimensional design of the Australian curriculum comprising learning areas, general capabilities and cross-curriculum priorities, provides teachers with the flexibility to address the diverse needs of students. Through a focus on the general capabilities of Literacy, Numeracy and Personal and social capability in particular, students with disability can access teaching and learning programs drawn from age-equivalent learning area content that is relevant to students' individual learning needs.

The review of the NSW senior secondary English, Mathematics, Science and History curriculum will require consideration to be given to how the curriculum supports students with special education needs. The review will include:

- considering how the senior secondary regular syllabuses can be developed to be inclusive of all learners
- ensuring that regular course requirements and assessment/examination procedures meet the needs of all learners
- revising the rationales for Life Skills courses to reflect the evolving needs of the students in the senior years of schooling and the purpose and value of each course in meeting these needs
- considering the alignment of Life Skills outcomes and content with the recently developed K–10 syllabuses and the related course options in the Stage 6 curriculum
- analysing the Life Skills course options for each learning area to support the learning needs of students.

Terms of reference

The review of the NSW senior secondary curriculum in English, Mathematics, Science and History includes a detailed analysis of the senior secondary Australian curriculum, identifying how the Australian curriculum content can be effectively adapted and incorporated into the NSW senior secondary curriculum structure.

In its review of the senior secondary curriculum, the BOSTES has taken into consideration national and international research and best practice, including evidence used for the development of the senior secondary Australian curriculum. The research undertaken by the BOSTES has informed the proposed directions for syllabus development in NSW for senior secondary English, Mathematics, Science and History. An overview of the literature reviewed can be found in the background material for the review of the NSW senior secondary syllabuses published on the BOSTES website.

In undertaking the review, the values and principles outlined in the NSW Government's White Paper *Securing their Future* (1997) and the *Melbourne Declaration on Educational Goals for Young Australians* (December 2008) have been considered and the proposed revisions reflect:

- research and best practice in the discipline
- rigour and challenge for students, focusing on essential learning
- inclusivity and accessibility for all students, including an appropriate degree of differentiation
- 21st century learning appropriate to the subject area, including literacy, numeracy, digital literacy and critical thinking
- opportunities for problem-based learning and multidisciplinary learning where appropriate
- a clear developmental sequence, both within and between courses
- relevant, flexible and manageable assessment experiences, with an appropriate balance between internal and external assessment
- flexibility for teachers to deliver the curriculum within the context of their educational community
- a standards-referenced framework for teaching, learning and assessment.

The proposed directions for syllabus development in each learning area specify:

- how the Australian curriculum content can be modified, reordered and supplemented in each learning area while remaining compatible with the NSW senior secondary assessment and examination system
- the nature and number of courses within each learning area, and how the structure of each course relates to the incorporation of the Australian curriculum
- assessment practices for each course within the learning areas, such as examination specifications, as a result of syllabus development.

Review and evaluation

The following section provides a succinct analysis of the curriculum for each of English, Mathematics, Science and History. Each analysis covers:

- the courses offered in NSW
- NSW candidature trends
- the relationship between the NSW and Australian curriculum courses
- proposed courses to be developed
- proposed revisions to syllabuses and assessment requirements.

ENGLISH

For a student to be eligible for the Higher School Certificate (HSC), at least two units must be studied from the following courses: English Advanced, English Standard, English as a Second Language, English Studies – pilot study, and English Life Skills.

NSW English courses available in the senior years are outlined below.

Table 2: NSW senior secondary English courses

Course	Status	Study years	Unit value/study hours
English (Standard)	Board Developed Course	Years 11 & 12	2U/120 hours each year
English (Advanced)	Board Developed Course	Years 11 & 12	2U/120 hours each year
English Extension 1	Board Developed Course	Years 11 & 12	1U/60 hours each year
English Extension 2*	Board Developed Course	Year 12	1U/60 hours
English as a Second Language	Board Developed Course	Years 11 & 12	2U/120 hours each year
English Life Skills [†]	Board Developed Course	Years 11 & 12	2U/120 hours each year
Fundamentals of English [‡]	Board Developed Course	Years 11 & 12	1U/60 hours 2U/120 hours
English Studies – pilot study [§]	Content Endorsed Course	Years 11 & 12	2U/120 hours each year

* Can only be studied with English Extension 1.

[†] Cannot be studied with any other English course, with the exception of Fundamentals of English.

[‡] Available as a Preliminary course only but may be studied in Years 11 or 12.

[§] Can be used to meet the requirements for two units of a Board Developed Course in English.

The following tables summarise candidature in each English course from 2009–2013.

Table 3: Preliminary and HSC candidature by English course 2009–2013

Course	2009		2010		2011		2012		2013	
	Prelim	HSC								
English (Standard)	35676	32454	36668	34371	33694	34384	33455	31804	33355	31496
English (Advanced)	32742	27248	32538	27132	32507	27110	32435	27217	31946	27009
English Extension 1	8526	5719	8326	5578	8481	5327	8254	5265	7963	5007
English Extension 2	–	2167	–	2202	–	2187	–	2129	–	1907
English as a Second Language	3936	3248	3529	3079	3043	2870	2908	2513	2749	2410
English Life Skills	1492	1377	1485	1486	1529	1407	1601	1311	1759	1367
Fundamentals of English	5152	–	4397	–	3649	–	3400	–	2926	–
English Studies – pilot study*	–	–	1274	–	5645	1228	6592	4977	7490	6233

* First HSC candidature 2011; first Preliminary candidature 2010

Table 4: Percentage retention of candidates from Preliminary to HSC English courses 2009–2013

Course	2008–09	2009–10	2010–11	2011–12	2012–13
	% Ret				
English (Standard)	97.2	96.3	93.7	94.3	94.1
English (Advanced)	83.7	82.8	83.3	83.7	83.2
English Extension 1	66.3	65.4	63.9	62.0	60.6
English as a Second Language	69.0	78.2	81.3	82.5	82.8
English Life Skills	99.4	99.5	94.7	85.7	85.3
English Studies – pilot study	–	–	96.3	88.1	94.5

Retention of students from the Preliminary to HSC course declines for both English (Advanced) and English (Standard). This may in part be explained by the number of students leaving school and the

number of students transferring from English (Advanced) to English (Standard) and from English (Standard) to English Studies.

NSW English courses and senior secondary Australian curriculum

The senior secondary Australian curriculum English courses are:

- English
- Literature
- English as an Additional Language or Dialect
- Essential English.

The current NSW English courses and the corresponding senior secondary Australian curriculum English courses are set out below.

Table 5: NSW and Australian curriculum courses for senior secondary English

NSW	Australian curriculum
English (Standard)	English
English (Advanced)	Literature
English Extension 1	No equivalent
English Extension 2	No equivalent
English as a Second Language	English as an Additional Language or Dialect (EAL/D)
English Life Skills	No equivalent
Fundamentals of English	No equivalent
English Studies	Essential English

Each senior secondary Australian curriculum course is organised into four units, with each unit designed to be delivered in 50–60 hours. Although it is intended that the last two units of each course be more cognitively challenging than the first, the units may be studied singly.

In general there is considerable overlap between the content of the senior secondary Australian curriculum for English and the NSW suite of senior English courses. For courses to build upon one another there must be flexibility to identify key concepts and reorganise content into an appropriate structure.

The NSW senior secondary English curriculum is arranged in courses that target particular learning needs and post-school pathways. The English (Advanced) and English Extension courses provide an appropriate foundation for students who wish to undertake related tertiary study. The Fundamentals of English course is designed to accommodate students undertaking the study of English (Standard) or English ESL and who require further literacy support. English Life Skills is designed for the small percentage of students, particularly those with an intellectual disability, for whom adjustments to teaching, learning and assessment are not sufficient to access some or all of the regular English outcomes.

Proposed NSW senior secondary English courses from 2016

Given that the current suite of NSW senior secondary English courses reflects appropriate rigour, equity and differentiation for students, it is proposed that these courses be maintained with revisions to course content and assessment practices. Electives and texts for English courses will continue to be elaborated in a separate support document revised at regular intervals.

Table 6: Proposed NSW senior secondary English courses

Course	Rationale
English (Standard)	The Preliminary and HSC English (Standard) courses are designed to focus on building students' proficiency in English to enhance their personal, social and vocational lives. These courses provide students with the opportunity to become confident and effective communicators and to enjoy the breadth and variety of English texts. They offer a rich language experience that is reflected in the modes of reading, writing, speaking, listening, viewing and representing.
English (Advanced)	The Preliminary and HSC English (Advanced) courses are designed for students to become critical and sophisticated users of English in order to enhance their personal social and vocational lives. These courses provide students with opportunities to apply critical and creative skills in their composition of and response to complex texts through the integration of the modes of reading, writing, speaking, listening, viewing and representing.
English Extension	The Extension courses are designed for students undertaking English (Advanced) who choose to study at a more intensive level in diverse but specific ways. In the Preliminary course students explore how and why texts are valued in particular contexts and seek opportunities to work in increasingly independent ways. The HSC Extension course builds on the outcomes of the Preliminary course.
English Extension 2	Students undertaking English Extension 2 develop a sustained composition (Major Work) and document and reflect on the process.
English EAL/D	This English EAL/D (suggested title) course is designed for students to acquire and develop their English language skills, knowledge and understanding to become effective, creative and confident communicators in English. Students extend their reading, writing, listening, speaking, viewing and representing skills through an integrated engagement with texts drawn from literature and other sources.
English Life Skills	This course is designed for the small percentage of students, particularly those with an intellectual disability, for whom adjustments to teaching, learning and assessment are not sufficient to access some or all of the regular English outcomes. Outcomes and content are selected from any combination of modules to suit the abilities, needs and interests of students with particular recognition of their needs in relation to literacy, numeracy and personal and social capability.
English Studies – pilot study	This is a non-ATAR course designed to meet the needs of students who are seeking an alternative to the English (Standard) course and who intend to proceed from school directly into employment or vocational training. The course provides students with the opportunities to develop language and literacy skills through content that is flexible and relevant to broader life contexts. The course also provides opportunities for students to develop critical and analytical skills through independent and collaborative research and investigation.

The current Fundamentals of English course has not been included in the proposed courses as the place of this course within the suite of senior secondary English courses needs to be considered in light of the review of the English (Standard) and English ESL courses.

Proposed revisions to NSW senior secondary English courses

The model applied to all Australian curriculum subjects is linear, with outcomes tied to particular, discrete units rather than the recursive model of NSW where outcomes are achieved over time. The revisions will maintain the current NSW recursive model.

The NSW courses place more emphasis on developing students' ability to be learners who reflect on their responding, composing and processes of learning. These opportunities for reflection and higher-order thinking will be maintained.

Other key theoretical underpinnings and strengths of the current NSW courses to be retained are:

- the central focus on making meaning through responding to and composing texts
- the comprehensive definition of 'texts'
- the valuing of both creative and critical approaches
- the six language modes of reading, writing, listening, speaking, viewing and representing
- literature as an entitlement for the full range of students.

The revised syllabuses will make more explicit key aspects of literacy necessary for students to be able to use language effectively, appropriately and accurately.

The following table outlines the proposed revisions of the NSW senior secondary English courses and accompanying assessment and examination specifications.

Table 7: Proposed revisions to NSW senior secondary English courses

NSW English course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
English (Standard) English (Advanced)	<ul style="list-style-type: none"> • Reorder, reword and complement the content expressed in the Australian curriculum <i>English</i> and <i>Literature</i> courses for the NSW English (Standard) and English (Advanced) courses respectively. • Reduce the time for the Area of Study in both the Preliminary and HSC courses to enable additional teaching time to be allocated to the course modules. • Review the description of the Module rubrics to allow more scope for the writing of electives. • Review the electives to ensure they are accessible and appropriate for the full range of students. • Review text requirements to allow for more flexible combinations of types of texts, while maintaining rigour. • Include a school-based option or a module without prescribed texts to be internally assessed in the Preliminary year. Such a module would provide more opportunities for students to undertake independent investigation and learning, and may allow for an enhanced focus on multimodal texts. • Reconsider the requirement for students to use related material in three sections (English Standard). • Consider opportunities to make more explicit key aspects of literacy necessary for students to be able to use language effectively, appropriately and accurately (English Standard). 	<ul style="list-style-type: none"> • Reduce the complexity of the internal assessment weightings and components. • Review the examination rubrics annually to specifically reflect the focus of each module. • Move creative writing from the external assessment (Paper 1) to an internal assessment requirement and reduce the length of the first examination. • Review the design of Paper 1 to reduce the likelihood of students using pre-prepared responses, while maintaining its link to the Area of Study. • Review the efficacy of using a similar style of question across the modules in Paper 2.
English Extension 1	<ul style="list-style-type: none"> • Review the Preliminary Extension course module description to ensure its intent is clear. 	<ul style="list-style-type: none"> • Reduce the duration of the HSC examination. • Review the examination rubrics to specifically reflect the focus of each question. • Include a core component in the assessment requirements.
English Extension 2		<ul style="list-style-type: none"> • Develop specific criteria for the internal assessment of the draft Major Work to include the process undertaken to develop it. • Review marking guidelines and standards to enhance specificity and clarity.

NSW English course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
English EAL/D	<ul style="list-style-type: none"> • Reorder, reword and complement the content expressed in the Australian curriculum <i>EAL/D</i> course. • Reduce the time for the Area of Study in both the Preliminary and HSC years to enable additional teaching time to be allocated to the course modules. • Review the description of the Module rubrics to allow more scope for the writing of electives. • Review text requirements to allow for more flexible combinations of types of texts, while maintaining rigour. • Maintain opportunities for reflection and higher-order thinking to ensure relevance for academically able students. • Include a school-based option or a module without prescribed texts to be internally assessed in the Preliminary year. Such a module would provide more opportunities for students to undertake independent investigation and learning, and could allow for an enhanced focus on multimodal texts. • Consider opportunities to make more explicit key aspects of literacy necessary for students to be able to use language effectively, appropriately and accurately. 	<ul style="list-style-type: none"> • Reduce the complexity of the internal assessment weightings and components. • Review the examination rubrics to specifically reflect the focus of each module. • Assess Module B internally as the focus does not accord well with the style of an external examination. • Move the Listening component from the external assessment to an internal assessment requirement. • Restructure the examination to one paper.
English Life Skills	<ul style="list-style-type: none"> • Review the rationale of the <i>Stage 6 English Life Skills Syllabus</i> to better reflect the evolving needs of the senior secondary cohort and the purpose of the course. • Revise the nature of outcomes and content in English Life Skills to better align with the recently developed <i>English K–10 Syllabus</i> and the proposals for redevelopment of the senior secondary English syllabuses. • Ensure the English Life Skills outcomes and content maintain a focus on the skills of literacy, numeracy and personal and social capability. 	<ul style="list-style-type: none"> • N/A
Fundamentals of English	<ul style="list-style-type: none"> • The ongoing need for this course will be considered in the context of revising English (Standard) and English ESL. 	<ul style="list-style-type: none"> • N/A

NSW English course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
English Studies – pilot study	<ul style="list-style-type: none"> Integrate content from the Australian curriculum <i>Essential English</i> course, where appropriate, ensuring that opportunities remain for students to develop critical and analytical skills and that literacy content is relevant to broader contexts than the classroom. Consider opportunities to make more explicit key aspects of literacy necessary for students to be able to use language effectively, appropriately and accurately in a range of contexts. 	<ul style="list-style-type: none"> N/A

MATHEMATICS

Non-calculus-based and calculus-based Mathematics courses are available for study in Years 11 and 12. These Mathematics courses are outlined below.

Table 8: NSW senior secondary Mathematics courses

Course	Status	Study year	Unit value/study hours
Preliminary Mathematics General*	Board Developed Course	Year 11	2U/120 hours
HSC Mathematics General 1*	Content Endorsed Course	Year 12	2U/120 hours
HSC Mathematics General 2*	Board Developed Course	Year 12	2U/120 hours
Preliminary Mathematics ('2 Unit')	Board Developed Course	Year 11	2U/120 hours
HSC Mathematics ('2 Unit')	Board Developed Course	Year 12	2U/120 hours
Preliminary Mathematics Extension†	Board Developed Course	Year 11	1U/60 hours
HSC Mathematics Extension 1‡	Board Developed Course	Year 12	1U/60 hours
HSC Mathematics Extension 2§	Board Developed Course	Year 12	1U/60 hours
Mathematics Life Skills*	Board Developed Course	Years 11 & 12	2U/120 hours

* Students may not study any other Stage 6 Mathematics course in conjunction with the Preliminary Mathematics General course, the HSC Mathematics General 1 course, the HSC Mathematics General 2 course or the Mathematics Life Skills course.

† May only be studied by students who are studying, or have completed, the Preliminary Mathematics ('2 Unit') course.

‡ May only be studied by students who are studying, or have completed, the HSC Mathematics ('2 Unit') course.

§ May only be studied by students who are studying, or have completed, the HSC Mathematics Extension 1 course.

The following tables summarise candidature in each Mathematics course from 2009–2013.

Table 9: Preliminary and HSC candidature by Mathematics course 2009–2013

Course	2009		2010		2011		2012		2013	
	Prelim	HSC								
General Mathematics*	34735	29911	35769	30992	35344	31633	36111	31702	39707	32379
Mathematics ('2 Unit')	26834	17197	26132	17152	26034	16564	25524	16700	24750	16463
Mathematics Extension 1	12890	8631	12613	9118	12692	8824	12520	8925	12429	8839
HSC Mathematics Extension 2	—	3170	—	3470	—	3441	—	3454	—	3198
Mathematics Life Skills	1216	1057	1299	1096	1404	1127	1568	1144	1635	1308

* Figures based on the previous General Mathematics course (study of this course concluded with the 2013 HSC course cohort), with the exception of the 2013 Preliminary candidature which represents the initial cohort for the new Preliminary Mathematics General course.

Table 10: Percentage retention of candidates from Preliminary to HSC Mathematics courses 2009–2013

Course	2008–09	2009–10	2010–11	2011–12	2012–13
	% Ret				
General Mathematics*	90.3	89.2	88.4	89.7	89.7
Mathematics	63.4	63.9	63.4	64.1	64.5
Mathematics Extension 1	68.0	70.7	70.0	70.3	70.6
Mathematics Life Skills	88.7	90.1	86.8	81.5	83.4

* Figures based on the previous General Mathematics course as 2014 is the first HSC candidature for HSC Mathematics General 1 and HSC Mathematics General 2.

There is continuing strong demand for all five available Mathematics courses for the HSC. However, over the period 2009–2013 there was an overall fall in the proportion of Mathematics students studying one or more of the calculus-based Mathematics ('2 Unit'), Mathematics Extension 1 and Mathematics Extension 2 courses for the HSC, and a resultant increase in the proportion studying General Mathematics. This decline in the proportion of students studying the calculus-based courses has been even more significant over the period of the current HSC (ie 2001–2013).

NSW Mathematics courses and the senior secondary Australian curriculum

The senior secondary Australian curriculum Mathematics courses are:

- Essential Mathematics
- General Mathematics
- Mathematical Methods
- Specialist Mathematics.

The current NSW Mathematics courses and the most appropriate Australian curriculum Mathematics courses for comparison are set out below.

Table 11: NSW and Australian curriculum courses for senior secondary Mathematics

NSW	Australian curriculum
Preliminary Mathematics General	Essential Mathematics, General Mathematics
HSC Mathematics General 1	Essential Mathematics, General Mathematics
HSC Mathematics General 2	Essential Mathematics, General Mathematics
Preliminary Mathematics ('2 Unit')	Mathematical Methods
HSC Mathematics ('2 Unit')	Mathematical Methods
Preliminary Mathematics Extension	Mathematical Methods, Specialist Mathematics
HSC Mathematics Extension 1	Mathematical Methods, Specialist Mathematics
HSC Mathematics Extension 2	Mathematical Methods, Specialist Mathematics
Mathematics Life Skills	No equivalent

Each senior secondary Australian curriculum course is organised into four units, with each unit designed to be delivered in 50–60 hours. Although it is intended that the last two units of each course be more cognitively challenging than the first, the units may be studied singly.

The following represent important considerations for the Mathematics learning area specifically in relation to incorporating the senior secondary Australian curriculum for Mathematics into new NSW senior secondary Mathematics courses:

- a high degree of difference exists between the content of the senior secondary Australian curriculum Mathematics courses and the content of the existing NSW senior secondary Mathematics courses. There is no clear rationale for the degree of difference
- access to a calculus-based course has not been provided within the Australian curriculum to particular student groups who may benefit from studying such a course
- the absence of an extension model within the Australian curriculum means that there will not be sufficient encouragement for students to undertake Mathematics at higher levels
- across the higher-level Australian curriculum courses there is a heavy emphasis on statistics and probability at the expense of other important topics.

Of primary importance in the development of a suite of senior Mathematics courses is the establishment of the desired structure, which will enable course content to be developed appropriate to the rationales and purposes of courses. The current NSW senior secondary Mathematics course structure has strong endorsement by NSW stakeholders and needs to be largely maintained in any redevelopment of the NSW senior Mathematics curriculum.

The current NSW structure comprises:

- two non-calculus-based pathways: Preliminary Mathematics General (Board Developed Course)/HSC Mathematics General 2 (Board Developed Course), and Preliminary Mathematics General (Board Developed Course)/HSC Mathematics General 1 (Content Endorsed Course)
- three calculus-based courses: Mathematics ('2 Unit'), Mathematics Extension 1 and Mathematics Extension 2
- Mathematics Life Skills.

Students studying to Mathematics Extension 1 level also study the Mathematics ('2 Unit') course and so, if subsequently deciding to study only the Mathematics ('2 Unit') course, can do so without disruption to their study. Students studying to Mathematics Extension 2 level also study the Mathematics ('2 Unit') and Mathematics Extension 1 courses. If subsequently deciding to study only up to Mathematics Extension 1 level, or only the Mathematics ('2 Unit') course, they can do so without disruption to their study.

The Australian curriculum senior secondary Mathematics courses have been designed with a different structure:

- Essential Mathematics (non-calculus-based)
- General Mathematics (non-calculus-based)
- Mathematical Methods (calculus-based)
- Specialist Mathematics (calculus-based).

However, while maintaining the current NSW senior secondary Mathematics structure, it will be possible to incorporate a proportion of the content across the senior secondary Australian curriculum Mathematics courses into the proposed NSW courses. Careful consideration of the statistics topics within the Australian curriculum calculus-based courses will be prominent in this work as statistics topics are currently not a feature of the NSW Mathematics ('2 Unit'), Mathematics Extension 1 or Mathematics Extension 2 courses.

Proposed NSW senior secondary Mathematics courses from 2016

It is proposed that the following 'non-calculus-based' courses and 'calculus-based' courses make up the suite of NSW senior secondary Mathematics courses from 2016.

Table 12: Proposed NSW senior secondary Mathematics courses

Course	Rationale
Non-calculus-based courses Preliminary Mathematics General HSC Mathematics General 1 HSC Mathematics General 2	The non-calculus-based courses Preliminary Mathematics General, HSC Mathematics General 1 and HSC Mathematics General 2 are new senior secondary Mathematics courses that were implemented with Year 11 in 2013 and with Year 12 in 2014. Teachers and schools have been familiarising themselves with the new courses since early 2012, undertaking professional development in relation to new content areas within the courses. For these reasons, it is proposed that the Preliminary Mathematics General, HSC Mathematics General 1 and HSC Mathematics General 2 courses be retained, with revisions as required in accordance with the evaluation of Mathematics '2 Unit'.
Calculus-based courses Mathematics 2 Unit Mathematics Extension 1 Mathematics Extension 2	<p>The 'Mathematics 2 Unit' (suggested title), Mathematics Extension 1 and Mathematics Extension 2 courses will form a continuum to provide opportunities at progressively higher levels for students to acquire knowledge, skills and understanding in relation to important concepts within areas of Mathematics that have applications in an increasing number of contexts. These concepts and applications are appropriate to the students' continued experience of Mathematics as a coherent, interrelated, interesting and intrinsically valuable study that forms a basis for future learning.</p> <p>The concept of a function of a real variable, the algebraic and geometrical representations of a number of important functions, and the introductory concepts and techniques of differential and integral calculus, will together form a strong basis for the courses.</p> <p>The concepts and techniques of calculus provide a means of modelling and developing increased understanding of many real-world situations, and of solving a variety of related problems. These situations and problems include many of those arising in the sciences, including in relation to the natural environment and medicine, and in statistics, business, finance and economics. A number of related applications will be studied in the Mathematics 2 Unit, Mathematics Extension 1 and Mathematics Extension 2 courses.</p>
Mathematics Life Skills	The Mathematics Life Skills course is designed for the small percentage of students, particularly those with an intellectual disability, for whom adjustments to teaching, learning and assessment are not sufficient to access some or all of the regular Mathematics outcomes. Outcomes and content are selected from any combination of modules to suit the abilities, needs and interests of students, with particular recognition of their needs in relation to literacy, numeracy and personal and social capability.

Proposed revisions to NSW senior secondary Mathematics courses

The following table outlines proposed revisions of the NSW senior secondary Mathematics courses and accompanying assessment and examination specifications. Further information in relation to structure of the new calculus-based courses follows.

Table 13: Proposed revisions to NSW senior secondary Mathematics courses

NSW Mathematics course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
Non-calculus-based courses		
Preliminary Mathematics General, HSC Mathematics General 1 and HSC Mathematics General 2	<ul style="list-style-type: none"> Consider the Australian curriculum <i>Essential Mathematics</i> and <i>General Mathematics</i> courses to incorporate content where appropriate. 	<ul style="list-style-type: none"> Retain current components and weightings. Retain current examination structure.
Calculus-based courses		
Mathematics '2 Unit'	<ul style="list-style-type: none"> Ensure an appropriate continuum of learning for students who have demonstrated competence in Mathematics up to and including Stage 5.2 level by the end of Year 10 and for those wishing to study Mathematics Extension courses. Review content to provide opportunity to develop an understanding of and competence in further aspects of Mathematics through real-world applications for concurrent HSC studies, such as in Science, Business Studies and Economics, and for further studies at tertiary level in such areas as the life sciences, business, finance, technology and education. Consider the Australian curriculum <i>Mathematical Methods</i> and <i>General Mathematics</i> courses to incorporate as broad a range of aspects of the course as is appropriate. 	<ul style="list-style-type: none"> Retain current components and weightings. Provide pathways within the examination to appropriately accommodate '2 Unit' only students and Extension 1 students.

NSW Mathematics course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
Calculus-based courses continued		
Mathematics Extension 1	<ul style="list-style-type: none"> • Ensure an appropriate continuum of learning for students who have demonstrated competence in Mathematics up to and including Stage 5.3 level by the end of Year 10 and for those wishing to study the Mathematics Extension 2 course. • Review content to provide opportunity to develop a thorough understanding of and competence in further aspects of Mathematics through real-world applications for concurrent HSC studies, such as in Science, Engineering Studies and Economics, and for further studies at tertiary level in Mathematics and in other areas such as the physical sciences and engineering. • Consider the Australian curriculum <i>Mathematical Methods</i> and <i>Specialist Mathematics</i> courses to incorporate as broad a range of aspects of the courses as is appropriate. 	<ul style="list-style-type: none"> • Retain current components and weightings. • Review examination structure to address perceived test speededness.
Mathematics Extension 2	<ul style="list-style-type: none"> • Ensure an appropriate continuum of learning for students who have demonstrated outstanding ability in Mathematics. • Review content to provide opportunity to develop considerable manipulative skills and a high degree of understanding of the fundamental ideas of algebra and calculus. • Review content to allow for a wide range of useful applications of Mathematics as well as a strong foundation for the further study of the subject. • Consider the Australian curriculum <i>Mathematical Methods</i> and <i>Specialist Mathematics</i> courses to incorporate as broad a range of aspects of the course as is appropriate. 	<ul style="list-style-type: none"> • Retain current components and weightings. • Retain current examination structure.

NSW Mathematics course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
Mathematics Life Skills	<ul style="list-style-type: none"> Review the rationale of the <i>Stage 6 Mathematics Life Skills Syllabus</i> to better reflect the evolving needs of the senior secondary cohort and the purpose of the course. Revise the nature of outcomes and content to better align with the recently developed <i>Mathematics K–10 Syllabus</i> and the proposals for redevelopment of the senior secondary Mathematics syllabuses. Ensure the Mathematics Life Skills outcomes and content maintain a focus on the skills of literacy, numeracy and personal and social capability. 	<ul style="list-style-type: none"> N/A

The following overviews illustrate possible structures of new calculus-based courses: Mathematics 2 Unit, Mathematics Extension 1, and Mathematics Extension 2.

Table 14: Proposed structure for revised Mathematics '2 Unit' course

Preliminary Mathematics 2 Unit	HSC Mathematics 2 Unit
<p>Approximately six topics focusing on areas of Mathematics such as real numbers, algebra, functions, graphs, geometry, trigonometry, differential calculus, sequences and series, and descriptive statistics.</p> <p>A number of modelling topics focusing on applications of Mathematics from other topics in the Preliminary course and utilising techniques from other topics in the course and earlier courses, such as applications involving real functions and applications of series to finance.</p>	<p>Approximately six topics focusing on areas of Mathematics such as differential calculus, integral calculus, probability, trigonometry, exponential and logarithmic functions, descriptive statistics, and random variables.</p> <p>A number of modelling topics focusing on applications of Mathematics from other topics in the HSC course, and utilising techniques from other topics in the course and earlier courses, such as applications involving probability and finance, applications to the natural environment.</p>

Table 15: Proposed structure for revised Mathematics Extension 1 course

Preliminary Mathematics Extension	HSC Mathematics Extension 1
<p>Approximately six topics focusing on areas of Mathematics such as circle geometry, further algebra, polynomials, functions, graphs, trigonometry, series, elementary difference equations, random variables, and the normal distribution.</p>	<p>Approximately six topics focusing on areas of Mathematics such as mathematical induction, binomial theorem, methods and applications of integration, further trigonometry, inverse functions and the inverse trigonometric functions, and further applications of calculus.</p>

Table 16: Proposed structure for revised Mathematics Extension 2 course

Mathematics Extension 2
<p>Approximately eight topics focusing on areas of Mathematics such as further inequalities, complex numbers, polynomials, functions, graphs, vectors, integration techniques, volumes, modelling with functions and derivatives, mechanics, difference equations, and statistical inference.</p>

SCIENCE

Currently a range of courses are available within the Science key learning area for study in Years 11 and 12. Students may count a maximum of 6 units of study in the Science key learning area towards their Preliminary or HSC patterns of study.

NSW Science courses available in the senior years are outlined below.

Table 17: NSW senior secondary Science courses

Course	Status	Study years	Unit value/study hours
Biology	Board Developed Course	Years 11 & 12	2U/120 hours each year
Chemistry	Board Developed Course	Years 11 & 12	2U/120 hours each year
Earth and Environmental Science	Board Developed Course	Years 11 & 12	2U/120 hours each year
Physics	Board Developed Course	Years 11 & 12	2U/120 hours each year
Senior Science*	Board Developed Course	Years 11 & 12	2U/120 hours each year
Science Life Skills†	Board Developed Course	Years 11 & 12	2U/120 hours each year

*Cannot be studied with any other Science course in the Preliminary year.

†Cannot be studied with any other Science course.

The following tables summarise candidature in each Science course from 2009–2013.

Table 18: Preliminary and HSC candidature by Science course 2009–2013

Course	2009		2010		2011		2012		2013	
	Prelim	HSC								
Biology	20970	15308	22340	15849	21959	16704	22678	16570	22756	16852
Chemistry	14872	10041	15814	10330	15479	10965	15703	10838	16223	11032
Earth and Environmental Science	2071	1393	2140	1449	2143	1473	2038	1497	2159	1399
Physics	12470	9024	12473	9359	12650	9382	12807	9469	13007	9562
Senior Science	3832	4802	4301	4901	4108	5377	4081	5235	4665	5441
Science Life Skills	491	431	597	419	582	470	644	450	804	483

Table 19: Percentage retention of candidates from Preliminary to HSC Science courses 2009–2013

Course	2008–09	2009–10	2010–11	2011–12	2013 HSC
	% Ret				
Biology	76	76	75	75	74
Chemistry	70	69	69	70	70
Earth and Environmental Science	69	70	69	70	69
Physics	76	75	75	75	75
Senior Science	123	128	125	127	133
Science Life Skills	81	85	79	77	75

It is to be noted that the HSC Senior Science course can be entered or added to a student's HSC pattern of study by students who have successfully completed any Preliminary Science course. This provides an explanation as to why Senior Science has an apparent retention rate above 100%.

Students who choose Preliminary Senior Science are currently excluded from all other Preliminary Science courses.

The actual retention rate for Senior Science is the number of students who commenced the Preliminary Senior Science course and subsequently completed the HSC Senior Science course. In 2012 there were 4081 students who completed Preliminary Senior Science and of these 2870

completed HSC Senior Science. From this, the actual retention rate for the HSC Senior Science course from 2012 to 2013 can be calculated as 70%.

The BOSTES figures indicate that the candidature from Preliminary to HSC courses decreases by 25–30% in NSW senior secondary Science courses.

NSW Science courses and senior secondary Australian curriculum

The senior secondary Australian curriculum Science courses are:

- Biology
- Chemistry
- Earth and Environmental Science
- Physics.

The current NSW Science courses and the corresponding senior secondary Australian curriculum Science courses are set out below.

Table 20: NSW and Australian curriculum courses for senior secondary Science

NSW	Australian curriculum
Biology	Biology
Chemistry	Chemistry
Earth and Environmental Science	Earth and Environmental Science
Physics	Physics
Senior Science	No equivalent
Science Life Skills	No equivalent

Each senior secondary Australian curriculum course is organised into four units, with each unit designed to be delivered in 50–60 hours. Although it is intended that the last two units of each course be more cognitively challenging than the first, the units may be studied singly.

Opportunities are evident for the adoption and integration of the senior secondary Australian curriculum into future NSW Biology, Chemistry, Earth and Environmental Science and Physics syllabuses.

Proposed NSW senior secondary Science courses from 2016

In reviewing the NSW senior secondary Science courses there is a need to enhance the relevance and applicability of the courses for students. Syllabus content should provide flexibility to deliver the curriculum in authentic contexts. Some Science courses may not currently attract the most capable students.

The proposed revisions aim to strengthen student engagement and the relevance of Science for students, as well as being sufficiently flexible to cater for the needs of all students.

It is proposed that the following courses make up the suite of NSW senior secondary Science courses from 2016.

Table 21: Proposed NSW senior secondary Science course

Course	Rationale
Biology	The Biology course will focus on the study of life from the molecular level, through the cellular level to individual organisms, populations and whole biospheres of animals and plants. The course will provide opportunities for students to develop an understanding of the historical development of biological concepts and their application. Students will be challenged to develop skills and knowledge about biological processes to enable them to make informed decisions about biological issues and to develop positive attitudes towards living things and the environment.
Chemistry	The Chemistry course will focus on the study of natural and synthetic substances and their interactions. This will be achieved by students analysing the interactions of and between substances at the atomic and molecular levels including the transfer of energy and creation of resultant substances. Students will become confident in their understanding of the fundamental concepts related to matter and the world in which they live. The courses will focus on students testing hypotheses by conducting experiments, predicting and analysing chemical reactions and drawing valid conclusions.
Earth and Environmental Science	The Earth and Environmental Science course will focus on the study and management of the earth's systems and its physical environment. Students will be challenged to view the earth as a finite system that changes over time both geologically and environmentally due to the impact of natural and synthetic phenomena. The HSC course will offer students preparation for further study in many multidisciplinary tertiary science courses.
Physics	The Physics course will focus on the nature and properties of matter and energy and their interactions. The course will explore the fundamental laws and the way things work and consider the recent and developing understanding of our universe from the sub-atomic to the cosmic level. The course will offer a range of experiences in the study of both classical and modern Physics.
Senior Science	The place of this course within the suite of senior secondary Science courses needs to be considered in light of the review of the remaining courses. If retained in its current form, the course will focus on developing students' scientific literacy and providing opportunities for students to engage in authentic, critical and creative inquiry by applying scientific investigative processes in real-world contexts. The possibility of enabling students to combine pre-defined modules from the other four Science courses within the Senior Science course could be considered.
Science Life Skills	This course is designed for the small percentage of students, particularly those with an intellectual disability, for whom adjustments to teaching, learning and assessment are not sufficient to access some or all of the regular Science outcomes. Outcomes and content are selected from any combination of modules to suit the abilities, needs and interests of students, with particular recognition of their needs in relation to literacy, numeracy and personal and social capability.

Proposed revisions to NSW senior secondary Science courses

The following table outlines the proposed revisions of the NSW senior secondary Science courses and accompanying assessment and examination specifications.

Table 22: Proposed revisions to NSW senior secondary Science courses

NSW Science course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
Biology Chemistry Earth and Environmental Science Physics	<ul style="list-style-type: none"> Review content to enhance student engagement. Review course modules to allow opportunity for students to combine pre-defined modules across courses. Enhance opportunities for research and project-based learning. Incorporate Australian curriculum content as appropriate. 	<ul style="list-style-type: none"> Enhance opportunities for students to engage in critical thinking and apply knowledge to new contexts in the external examinations.
Senior Science	<ul style="list-style-type: none"> Review the efficacy of the Senior Science course, including whether student needs are better met by the opportunity to combine pre-defined modules from the other four Science courses. If the course is retained: <ul style="list-style-type: none"> review pattern of study rules in relation to transferring from Preliminary Senior Science into other HSC Science courses enhance opportunities for research and project-based learning, providing for depth of learning and real-world application, with particular reference to Science, Technology, Engineering and Mathematics (STEM) issues. 	<ul style="list-style-type: none"> Consider the inclusion of internally assessed research in the Preliminary year. This would be facilitated by authentic project and research-based learning approaches in the classroom with opportunities for formative assessment throughout the course.
Science Life Skills	<ul style="list-style-type: none"> Review the rationale of the <i>Stage 6 Science Life Skills Syllabus</i> to better reflect the evolving needs of the senior secondary cohort and the purpose of the course. Revise the nature of outcomes and content in Science Life Skills to better align with the recently developed <i>Science K–10 Syllabus</i> and the proposals for redevelopment of the senior secondary Science courses. Consider the review and evaluation of the regular senior secondary Science courses along with the prospective Life Skills candidature to inform course options. Ensure the Science Life Skills outcomes and content maintain a focus on the skills of literacy, numeracy and personal and social capability. 	<ul style="list-style-type: none"> N/A

HISTORY

History courses are available in Years 11 and 12 and cover the study of both Ancient and Modern History.

NSW History courses available in the senior years are outlined below.

Table 23: Stage 6 History Courses

Course	Status	Study years	Unit value/study hours
Ancient History	Board Developed Course	Years 11 & 12	2U / 120 hours each year
Modern History	Board Developed Course	Years 11 & 12	2U / 120 hours each year
History Extension*	Board Developed Course	Year 12	1U / 60 hours
History Life Skills†	Board Developed Course	Years 11 & 12	2U / 120 hours each year

* Available in Year 12 only.

† Cannot be studied with any other History course.

The following tables summarise candidature in each History course from 2009–2013.

Table 24: Preliminary and HSC candidature by History course 2009–2013

Course	2009		2010		2011		2012		2013	
	Prelim	HSC								
Ancient History	15909	11954	15940	12086	16031	12144	15573	12100	15001	11742
Modern History	12954	9662	13215	10054	13519	10143	13483	10476	13600	10447
History Extension	–	2210	–	2191	–	2064	–	2042	–	1988
History Life Skills*	755	625	769	692	923	675	82	707	164	77

* History Life Skills commenced in 2012 for Preliminary and 2013 for HSC. The figures included prior to these years are from the Citizenship & Society Life Skills course which offered more generic study across the Human Society and its Environment key learning area.

Table 25: Percentage retention of candidates from Preliminary to HSC History courses 2009–2013

Course	2008–09	2009–10	2010–11	2011–12	2013 HSC
	% Ret				
Ancient History	78	76	76	74	75
Modern History	78	77	76.5	77	77

History Life Skills is not included in this table as the course commenced 2012 for Preliminary and 2013 for HSC.

Both Ancient and Modern History continue to be popular choices in the HSC program, with Ancient History having the 7th and Modern History the 9th highest candidature. The History Extension candidature has decreased by 10% since 2009.

The retention rate between Preliminary and the HSC year for both Histories has varied from 74% to 78% over the past 5 years.

NSW History courses and senior secondary Australian curriculum

The senior secondary Australian curriculum History courses are:

- Ancient History
- Modern History

The current NSW History courses and the corresponding senior secondary Australian curriculum History courses are set out below.

Table 26: NSW and Australian curriculum courses for senior secondary History

NSW	Australian curriculum
Ancient History	Ancient History
Modern History	Modern History
History Extension	No equivalent course
History Life Skills	No equivalent course

Each senior secondary Australian curriculum course is organised into four units, with each unit designed to be delivered in 50–60 hours. Although it is intended that the last two units of each course be more cognitively challenging than the first, the units may be studied singly.

The senior secondary Australian curriculum and NSW courses in History are structurally quite different. The senior secondary Australian curriculum History courses lack a core study to support an external examination such as the HSC and there is no prescribed requirement for a historical investigation in the Preliminary course. There is an imbalance in the scope and resources available to support the historical periods and personalities available for study. The chronology of the content in the first two units of each History course does not necessarily provide a chronological or conceptual foundation for the content in the latter two units.

The overall strand structures of the Australian curriculum consisting of knowledge, understanding and skills are appropriate for both Ancient and Modern History and reflect the NSW structure. Many topics are relevant and engaging. However, some topics are too challenging conceptually for Preliminary students and do not cater for the full range of student abilities and interests.

The following table shows the corresponding Australian curriculum Ancient History units to the NSW Ancient History course.

Table 27: NSW and corresponding Australian curriculum units for Ancient History

NSW units	Australian curriculum units
Year 11 Part I: Introduction : Investigating the Past and Case Studies Part II: Ancient Societies, Sites & Sources (one) Part III: Historical Investigation	Year 11 Unit 1 : Investigating the Ancient World Unit 2: Ancient Societies (two)
Year 12 Part I: Core study – Pompeii and Herculaneum Part II: Ancient Societies (one) Part III: Personalities (one) Part IV: Historical Periods (one)	Year 12 Unit 3: People, Power & Authority (one Historical Period and one Personality) Unit 4: Reconstructing the Ancient World (one)

The following table shows the corresponding Australian curriculum Modern History units to the NSW Modern History course.

Table 28: NSW and corresponding Australian curriculum units for Ancient History

NSW units	Australian curriculum units
Year 11 Part I : Case studies (two) Part II: Historical Investigation Part III: Core Study : The World at the Beginning of the C20th	Year 11 Unit 1: Understanding the Modern World Unit 2: Movements for Change in the C20th
Year 12 Part I: Core Study World War I Part II: National Studies (one) Part III: Personalities (one) Part IV: International Studies in Peace & Conflict (one)	Year 12 Unit 3: Modern Nations in the C20th Unit 4: The Modern World Since 1945

Proposed NSW senior secondary History courses from 2016

Currently, there is no provision for students who may wish to undertake a more general study of History. The introduction of an alternate assessment pathway for students not wishing to gain an ATAR may provide opportunities for these students within the study of Ancient and Modern History.

It is proposed that the current History courses be retained to make up the suite of NSW senior secondary History courses from 2016.

Table 29: Proposed NSW senior secondary History courses

Course	Rationale
Ancient History 2 Unit	This two-year course provides the opportunity for a detailed study of ancient societies, personalities, sites and events through a range of archaeological and written sources.
Modern History 2 Unit	This two-year course provides the opportunity for a detailed study of forces that have shaped the modern world and the impact of personalities and world events through a range of sources.
History Extension	This course provides opportunities for students to develop the skills to evaluate the ideas and processes used by historians to write history; that is, an introduction to historiography.
History Life Skills	This course is designed for the small percentage of students, particularly those with an intellectual disability, for whom adjustments to teaching, learning and assessment are not sufficient to access some or all of the regular History outcomes. Outcomes and content are selected to suit the abilities, needs and interests of students, with particular reference to their needs in relation to literacy, numeracy and personal and social capability. It has been recently developed and may require minor revisions only.

Proposed revisions to NSW senior secondary History courses

This is an opportunity to review and refresh the current courses and to determine whether elements of the Australian curriculum can be incorporated into the NSW syllabuses. The revision of the NSW senior secondary History courses will include consideration of the number of options within each course, with the possibility of removing less popular options. This may allow for expansion of the core study within each course.

The following table outlines the proposed revisions of the NSW senior secondary History courses.

Table 30: Proposed revisions to NSW senior secondary History courses

NSW History course	Proposed revisions		
	Syllabus content	Assessment and examination specifications	
Preliminary Ancient History	Part I Introduction : Investigating the Past and Case Studies <ul style="list-style-type: none"> Consider the inclusion of ‘representations of the past’. Review choice of Case Studies. 	<ul style="list-style-type: none"> N/A 	
	Part II: Ancient Societies, Sites and Sources <ul style="list-style-type: none"> Review optional topics in Australian curriculum for possible inclusion such as the broader themes of slavery, art and architecture, weapons and warfare. 		
	Part III: Historical Investigation <ul style="list-style-type: none"> Will be retained. 		
HSC Ancient History	Part I Core Study: Cities of Vesuvius <ul style="list-style-type: none"> Consider retaining and reviewing the amount of content or offer an alternative core drawn from the Australian curriculum such as the Athenian Agora or 18th Dynasty Thebes. 	<ul style="list-style-type: none"> Review the length of the examination. Section I : Core - Cities of Vesuvius – 25 marks <ul style="list-style-type: none"> Part A: Review the type of objective response questions examined. Part B: Include more content and sources relating to life in Pompeii and Herculaneum rather than focusing solely on Section 3. Increase the number of marks to reflect the depth and breadth of the topics. 	
	Part II: Ancient Societies <ul style="list-style-type: none"> Retain the current four ancient civilisations (Egypt, the Near East, Greece and Rome) with the requirement to study at least two civilisations. Consider the inclusion of the Australian curriculum society of China in the Qin and Han Dynasties. Review less popular options. 		Section II : Ancient Societies – 25 marks <ul style="list-style-type: none"> Review the mode of questions.
	Part III: Personalities <ul style="list-style-type: none"> Review the NSW Personalities and alternative Personalities offered in the Australian curriculum. Review less popular options. 		Section III: Personalities – 25 marks <ul style="list-style-type: none"> Consider reducing the number of marks to reflect the time actually spent teaching Personalities in comparison to other sections.

NSW History course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
	<p>Part IV: Historical Periods</p> <ul style="list-style-type: none"> Review the NSW Historical Periods and alternative historical periods offered in the Australian curriculum, whilst maintaining an appropriate sequence of time periods. Review less popular options. 	<p>Section IV : Historical Periods – 25 marks</p> <ul style="list-style-type: none"> Include one extended response question for each Historical Period.
Preliminary Modern History	<p>Part I: Case Studies</p> <ul style="list-style-type: none"> Consider the inclusion of some of the proposed topics in Unit 1 of the Australian curriculum Unit 1. Consider including an introduction to the work of the historian and the nature of historical sources as in Ancient History. 	<ul style="list-style-type: none"> N/A
	<p>Part II : Historical Investigation</p> <ul style="list-style-type: none"> Will be retained. 	
	<p>Part III: Core Study: The World at the Beginning of the C20th</p> <ul style="list-style-type: none"> Dependent on review of the HSC Core Study. 	
HSC Modern History	<p>Part I : Core Study – World War I</p> <ul style="list-style-type: none"> Further consultation required on the choice of core. 	<ul style="list-style-type: none"> Review the length and structure of the examination as it currently includes two extended response questions in contrast to one in Ancient History and may therefore be considered more demanding. <p>Section I : Core – World War I – 25 marks</p> <ul style="list-style-type: none"> Part A: Review the type of objective response questions included and the impact of revisions to curriculum content on the mode of examination questions. Part B: Review the types of questions asked to reduce predictability. Increase the number of marks to reflect the depth and breadth of the Core topic.

NSW History course	Proposed revisions	
	Syllabus content	Assessment and examination specifications
	Part II : National Studies <ul style="list-style-type: none"> Review the choice of the national studies. Review time frames for each National Study. Review less popular options. 	Section II : National Studies – 25 marks <ul style="list-style-type: none"> Retain the current structure of this section.
	Part III : Personalities <ul style="list-style-type: none"> Review the current list of personalities. Consider moving the Personality study to the Preliminary course. 	Section III: Personalities – 25 marks <ul style="list-style-type: none"> Consider reducing the number of marks to reflect the time actually spent teaching Personalities in comparison to other sections.
	Part IV : International Studies in Peace and Conflict <ul style="list-style-type: none"> Consider the inclusion of topics from the Australian curriculum to provide opportunity for more contemporary study of world history. 	Section IV : International Studies in Peace and Conflict – 25 marks <ul style="list-style-type: none"> Retain the current structure of this section.
History Extension	<ul style="list-style-type: none"> Consider a reduction in the amount of work required. Review the Case Studies to consider their relevance in the course. A review is required especially for the Ancient History Case Studies as they are not as challenging as many of the Modern History examples and some have little historiographical material, such as the study of Teti. Review content in response to revisions to the Ancient and Modern History courses to avoid overlap. 	<ul style="list-style-type: none"> Review the mode of the examination. Review internal assessment of the research assignment. Review the weighting for the research assignment.
History Life Skills	<ul style="list-style-type: none"> Review the rationale of the <i>Stage 6 History Life Skills Syllabus</i> to better reflect the evolving needs of the senior secondary cohort and the purpose of the course. Revise the nature of outcomes and content in History Life Skills to better align with the recently developed <i>History K–10 Syllabus</i> and the proposals for redevelopment of the senior secondary History syllabuses. Ensure the History Life Skills outcomes and content maintain a focus on the skills of literacy, numeracy and personal and social capability. 	<ul style="list-style-type: none"> N/A

Sector and stakeholder engagement

As part of the syllabus review phase of the BOSTES' syllabus development process, consultation on the proposed directions for the development of new NSW senior secondary syllabuses in the English, Mathematics, Science and History key learning areas will be conducted from 11 August to 21 September. Consultation will include education systems, key stakeholders, teachers, parents and other members of the community.

Representatives from the BOSTES' key stakeholder groups, including professional associations, the special education community, the BOSTES Aboriginal Education Advisory Committee and the BOSTES Student Advisory Group, will also have an opportunity to provide feedback on the proposed directions for syllabus development.

Members of the public are invited to provide feedback in relation to the proposed directions via:

- an online survey
- face-to-face meetings in NSW metropolitan and regional centres
- written submissions to the BOSTES.

Details in relation to the survey and meetings can be found on the BOSTES website.

Timeline

The review and development of NSW senior secondary curriculum for English, Mathematics, Science and History will be conducted according to the following indicative timeline.

Table 31: Timeline for syllabus development process

Stage	Activities	Indicative timeline
Syllabus review	<ul style="list-style-type: none"> • evaluation of current syllabuses • proposed directions for syllabus development • consultation on proposed directions for syllabus development • final directions for syllabus development endorsed 	early 2014 mid 2014 late 2014
Writing brief development	<ul style="list-style-type: none"> • draft writing briefs developed • consultation on draft writing briefs • final draft writing briefs developed • final draft writing briefs endorsed 	early 2015 mid 2015 mid 2015
Syllabus development	<ul style="list-style-type: none"> • draft syllabuses developed • consultation on draft syllabuses • final draft syllabuses developed • final draft syllabuses endorsed • support materials developed 	2015–2016
Implementation	<ul style="list-style-type: none"> • syllabuses released • implementation schedule 	TBA

Appendix A: Evaluation of NSW senior secondary courses

BOSTES has undertaken to refer to the following criteria when reviewing NSW senior secondary courses. The criteria addressed in this paper are presented in *italics*. The remaining criteria will be addressed within the writing brief development phase.

Criteria for Higher School Certificate courses

For any new courses developed or endorsed by the BOSTES, there must be satisfactory evidence of the need for the course and an assurance of its quality through:

- a detailed explanation of the nature of the subject content (knowledge, skills and understanding);
- a clear rationale and statement of purpose for the course;
- a review of national and international research and practice;
- the learning outcomes students are expected to achieve;
- evidence that the learning outcomes for students are set at an appropriate standard;
- prior knowledge assumed in students enrolling in the course, and the manner in which that prior knowledge will be built upon;
- an identification of the subsequent uses students might make of the learning from the course;
- internal and external assessment procedures to be used;
- the relationship of the course to existing courses with which it might appear to overlap;
- evidence of potential demand for the course;
- an analysis of the likely impact on school timetables;
- evidence of the availability of appropriate numbers of suitably qualified teachers; and
- evidence that the course can be taught and examined within the resources usually available to schools.

Each new Higher School Certificate course proposed by the BOSTES must have a clear statement of how it meets these criteria.

These criteria will also be applied to all existing courses, placing on notice for removal or re-organisation all courses that fail to satisfy the criteria.

Securing their Future: The New South Wales Government's reforms for the Higher School Certificate, p 8.