Computer Science ATAR Years 11 and 12 Syllabus Review Feedback 2020

The School Curriculum and Standards Authority (the Authority) invites teachers and other stakeholders to provide feedback about the Computer Science ATAR Years 11 and 12 syllabuses.

Feedback received will be considered by the Authority as a part of its review process.

The survey should take approximately 20 minutes to complete. There are a number of specific questions as well as the opportunity to make general comments at the end of the survey.

We may not be able to respond to all comments and suggestions made via the survey, but we will read them all, and we appreciate your contributions.

Note: only complete survey responses will be considered.

Note also that you can use, from Page 2, a Save and Continue toolbar on the top right of your browser window. You will be emailed a link to allow you to continue your survey if you run out of time. For more information on this feature, see this link:

https://help.surveygizmo.com/help/save-and-continue.

A copy of the syllabus will be required for reference when completing this feedback. Links to the relevant syllabuses are provided below in PDF format.

DOWNLOAD ATAR SYLLABUSES

The survey link will remain open until 9 March 2020.

Please provide your email address:

A copy of your feedback will be emailed to you. The School Curriculum and Standards Authority will not identify you or your feedback. You will be given the option to allow us to contact you to discuss your feedback further, if the Authority deems this necessary.

brett.clarke@education.wa.edu.au

This response is from:

Secondary teacher

If you are/were a teacher, please indicate the number of years you've been practising as a teacher:

26 – 30

I am:

not an Aboriginal and/or Torres Strait Islander person

Type of school or organisation:

Government education system

Location:

Metropolitan Perth

Number of people contributing to this survey:

1

If you are a member of a school community, please specify which type of school:

High school (Years 7 – 12)

Please indicate your current teaching status in relation to the Computer Science course:

I am currently teaching Year 11 and/or Year 12 ATAR
I have previously taught Year 11 and/or Year 12

To what extent do you agree with the following statements related to the RATIONALE (page 1 of both syllabuses):

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The rationale reflects the nature and purpose of the syllabuses				X	
The course outcomes provide a succinct statement of the overall purpose of the syllabuses				X	
The rationale and course outcomes provide appropriate details about the knowledge, understanding, skills, values and attitudes to be developed				X	
Currently there is a single rationale for WACE Computer Science. This is appropriate; distinct rationale statements for ATAR and General are not necessary				X	

Please feel free to comment on any responses to the previous question.

The current ATAR Computer Science Course is well out of date in terms of the nature and purpose of the syllabus and therefore the existing rationale also needs to be re-conceptualised. The rationale does not recognise the Prior Learning of students, particularly those whom have studied the now compulsory WAC Digital Technologies Courses up to and including year 8, nor the widespread need for an emphasis on solid coding, security and data science skills.

If you believe the General and ATAR Computer Science Courses should have separate, distinct rationales, please comment.

Absolutely. The two courses target quite different audiences and therefore the rationale for each audience must be different.

To what extent do you agree with the following statements related to the ORGANISATION (pages 3 — 8 of both syllabuses) of the Computer Science ATAR syllabuses:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The structure of the syllabuses supports learning				X	
The organisation of content supports learning				X	
The representation of the General Capabilities supports learning		X			
The representation of the Cross-Curricular Priorities supports learning		X			
The inclusion of both a theory and practical component within the course is appropriate	X				
The current suggested database management systems are relevant		X			
The current suggested programming languages are relevant			X		

Please feel free to comment on any responses to the previous question.

The topics and content within each are well out of date and do not reflect the current emphasis of the Australian Curriculum Digital Technologies framework. By Year 10 all students will have prior knowledge of coding in an Object oriented environment such as Python, Swift etc. Object oriented concepts must be incorporated going forward so all appropriate languages should be first class citizens in that respect.

To what extent do you agree with the following statements related to the GENERAL CAPABILITIES AND CROSS-CURRICULUM PRIORITIES (pages 3 — 8 of both syllabuses) of the Computer Science syllabuses:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The General Capabilities should provide more explicit support for learning		X			
The Cross-Curriculum priorities should provide more explicit support for learning		X			

Please feel free to comment on any responses to the previous question.

As this course needs to be completely re-written to suit contemporary conditions, both the general capabilities and cross curriculum priority statements need re-writing as well to reflect appropriate integration with contemporary notions and applications of computer science.

To what extent do you agree with the following statements related to the content of Units 1 — 4:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The Unit 1 content provides clear scope and direction for teaching				X	
The Unit 2 content provides clear scope and direction for teaching				X	
The Unit 3 content provides clear scope and direction for teaching				X	
The Unit 4 content provides clear scope and direction for teaching				X	

Please elaborate on your response to Unit 1 and its content.

Given how out of date the current content of this course is with respect to the scope of contemporary computer science curriculum K-10 and in the tertiary & TAFE sectors, then this course needs to be re-written to reflect contemporary content, hardware & software environments etc to adequately provide clear scope and direction for teaching.

Please elaborate on your response to Unit 2 and its content.

Given how out of date the current content of this course is with respect to the scope of contemporary computer science curriculum K-10 and in the tertiary & TAFE sectors, then this course needs to be re-written to reflect contemporary content, hardware & software environments etc to adequately provide clear scope and direction for teaching.

Please elaborate on your response to Unit 3 and its content.

Given how out of date the current content of this course is with respect to the scope of contemporary computer science curriculum K-10 and in the tertiary & TAFE sectors, then this course needs to be re-written to reflect contemporary content, hardware & software environments etc to adequately provide clear scope and direction for teaching.

Please elaborate on your response to Unit 4 and its content.

Given how out of date the current content of this course is with respect to the scope of contemporary computer science curriculum K-10 and in the tertiary & TAFE sectors, then this course needs to be re-written to reflect contemporary content, hardware & software environments etc to adequately provide clear scope and direction for teaching.

To what extent do you agree with the following statements related to the Assessment Table:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The Project assessment types are appropriate			X		
The Project assessment type descriptions are appropriate			X		
The Project assessment type weightings are appropriate			X		
The Theory Test assessment types are appropriate			X		
The Theory Test assessment type descriptions are appropriate			X		
The Theory Test assessment type weightings are appropriate			X		
The Practical Test assessment type weightings are appropriate			X		
The Practical Test assessment type weightings are appropriate			X		
The Practical Test assessment type weightings are appropriate			X		
The stipulation of the minimum number of assessments per assessment type are appropriate			X		
The number of examinations is appropriate			X		
The weighting of examinations is appropriate			X		

Please feel free to comment on your responses to the previous question.

Until a new scope and sequence of content is developed for this course it is not possible to agree with the current assessment model. Other Australian states have recently re-developed their senior Computer Science Courses and have been quite innovative with their thinking regarding assessment strategies etc. Again, this aspect should only be considered as a part of the process of re-writing this course in its entirety.

Please comment on the following possible inclusion in the syllabuses:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The inclusion of a maximum number of assessment tasks in a year		X			
The inclusion of a maximum number of assessment tasks by assessment type in a year		X			

Please feel free to comment on your responses to School-based Assessments.

Until a new scope and sequence of content is developed for this course it is difficult to comment with regard to an existing assessment model. Over assessment is an issue though, so suggesting maximums may do no harm. Other Australian states have recently re-developed their senior Computer Science Courses and have been quite innovative with their thinking regarding assessment strategies etc. Again, this aspect should only be considered as a part of the process of re-writing this course in its entirety.

To what extent do you agree with the following statements related to the written examination design brief:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The examination options, and dot points specifying the examination requirements are appropriate			X		
The supporting information is appropriate			X		
The time allowed for the examination is appropriate		X			
The Section One examination parameters and supporting information are appropriate			X		
The Section Two examination parameters and supporting information are appropriate			X		
The time allocation and weighting for each section are appropriate			X		
The examination is an important part of a future ATAR course		X			
There should be no major changes to the style of examination			X		

To what extent do you agree with the following statement related to the another possible examination design brief:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
A practical (portfolio) examination design brief that allows students to showcase their computer science knowledge and skills.	X				

Please feel free to comment on your responses to the written examination design brief.

The design brief will need to be re-written to reflect the nature and content of an entirely new course if it is to be relevant to the contemporary needs of students, further education and industry. The nature of the IT industry is such that it favours demonstrated ability over knowledge recall since the half life of IT knowledge is so short and it can be accessed readily from external sources nowadays.

To what extent do you agree with the following statements related to the ATAR Grade Descriptions:

	Strongly agree	Agree	Disagree	Strongly disagree	Not in a position to comment
The ATAR Grade Descriptions provide consistency			X		
The ATAR Grade Descriptions provide discrimination between the grades				X	
The ATAR Grade Descriptions align clearly in the syllabus			X		

Please feel free to comment on your responses to the ATAR Grade Descriptions.

A re-written course will require new grade descriptors which are sorely needed. The current descriptors often differ in only a few words and don't adequately differentiate between students along the continuums of demonstrated difference observed in typical classrooms between typical students.

Please provide any further comments or suggestions you would like to make about the Computer Science ATAR syllabuses.

I have convened a group of stakeholders that has met on several occasions representing further education (Uni's, TAFE), Industry bodies (Aust Computer Society), AIIA, Industry Training Council, community groups, Coderdojo, Fogarty Foundation etc. I also have over 25-30 years experience with the development of senior secondary computing courses in WA including writing the courses, their texts, serving on all aspects of examining panels and acting as a moderator. On the basis of these experiences, including currently teaching this course and the WA Curriculum Digital Technologies courses 7-10, it is impossible in all good conscience, not to call for a complete re-write of this course. In its current form, it no longer represents a contemporary view of the domain knowledge of computer science, or contemporary practice within the industry or the skills needed to progress towards a career in the wide range of IT related industry sectors that are rapidly emerging.

If required, would you be available to discuss your feedback with a representative of the Authority?

Yes

Please provide your details.

Name : Brett Clarke
School/Institution : Willetton Senior High School

Thank you for taking the time to provide your feedback.