

ACT Board of Senior Secondary Studies

Public Consultation Report 2024

Draft Course: Health Science A/T/M

- This report has been prepared following public consultation.
- All feedback submitted as part of the consultation process has been recorded and analysed.
- The responses to the feedback have been compiled following the deliberations of the Course writing team.
- Amendments to the Course have been made where required, as a result of the consultation process.

B S S S

Public Consultation Report on Health Science Draft Course		
Respondents	ED 6 Independent 1	
The rationale provides clarity about the scope of the course, its distinctive nature, and outcomes for students	2, 3, 3, 3, 3, 5, 4	
Comments on Rationale	The Health Science course has more overlapping content with the Biology course than the current Human Biology course.	The Biology course need not cover any aspect of human body systems or health. In schools offering both Health Science and Biology, Biology courses should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses, they may gain an understanding of how different organisms have developed. If schools are not offering both, any question of overlap is less relevant.
	<p>'In Health Science, students will investigate the major systems of the body and their functions.' The current Human Biology course focuses on the human body in Year 11 and human health in Year 12. However, the Health Science course endeavours to primarily focus on the human body systems in both Year 11 and Year 12.</p> <p>This puts the Health Science course in significant content overlap with other BSSS courses, which has the long-term potential to affect student enrolments, quality of teaching and learning for effective delivery of content, and the longevity of the course itself. Human body systems are also covered in the following BSSS courses. The systems highlighted in yellow are taught primarily in scientific detail for that course.</p> <p>BSSS Biology course: Cardiovascular, Respiratory and Digestive systems [Unit 2: Cells and Organisms] Nervous, Endocrine, Urinary and Immune systems [Unit 4: The Internal Environment] BSSS Human</p>	<p>In each unit, the Health Science course moves from a human body system/s to the health of the system/s. This allows students to apply learning about the system immediately to questions of human health and treatments.</p> <p>The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, Biology courses should be focused on non-human organisms and their functions.</p> <p>Exercise Science is not a science course providing training in the scientific method and thinking and as such is very different in its fundamental ideas and concepts to Health Science. Also, as the name suggests, Exercise Science focuses on exercise, sports physiology, and aspects of the human systems relevant</p>

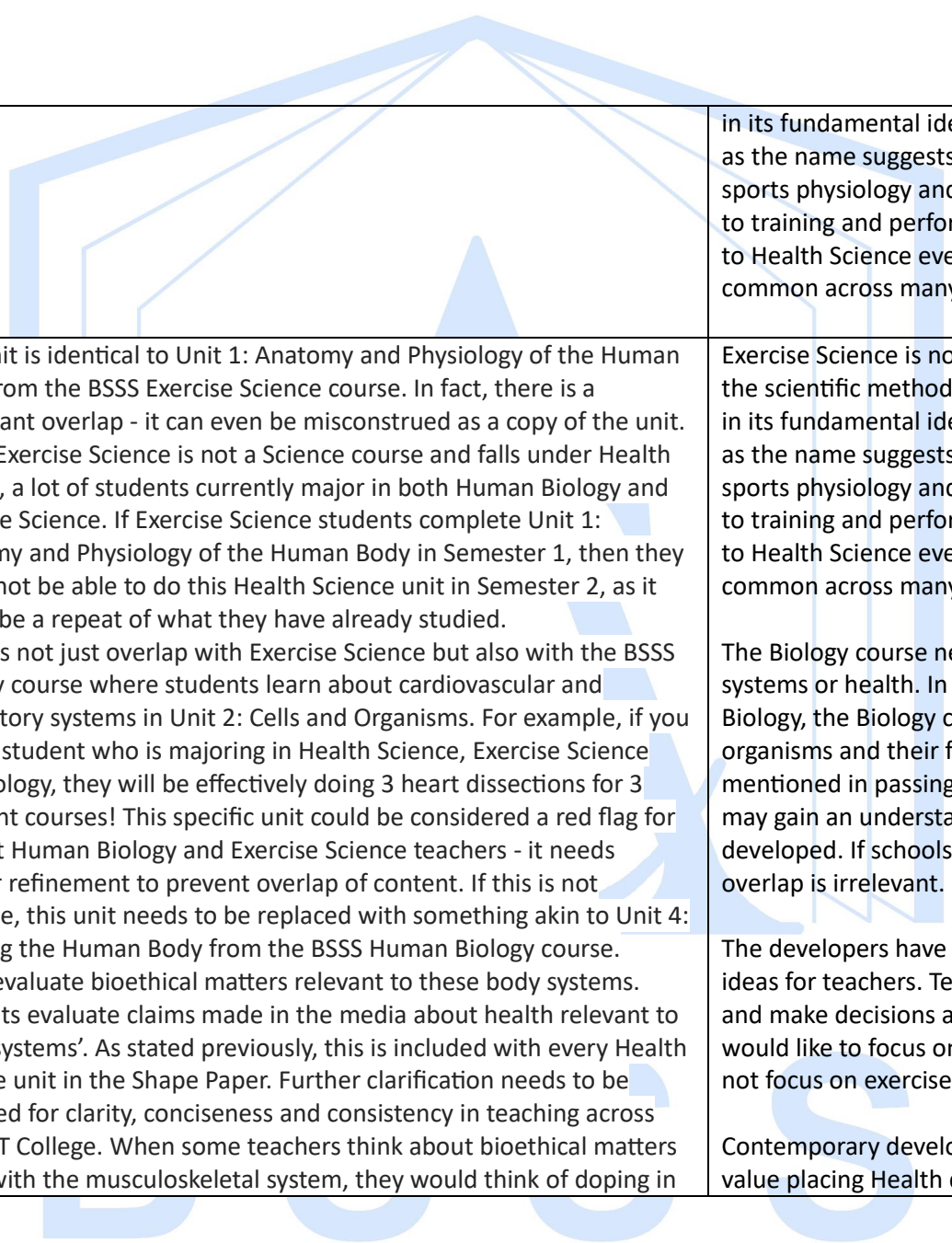
	<p>Biology course: Integumentary system [Unit 1: The Essentials of Human Life] Nervous system - PNS [Unit 1: The Essentials of Human Life] Nervous system - CNS [Unit 2: The Aging Human Body] Endocrine system - Reproductive Hormones [Unit 2: The Aging Human Body] Reproductive system [Unit 2: The Aging Human Body] Digestive System Overview [Unit 4: Treating the Human Body] BSSS Exercise Science course: Cardiovascular and Respiratory systems [Unit 1: Anatomy and Physiology of the Human Body] Skeletal and Muscular systems [Unit 1: Anatomy and Physiology of the Human Body] Digestive System and Nutrition [Unit 3: Preparation for Training and Performance]</p> <p>Major body systems and their functions are covered in the BSSS Biology course, so there is a strong overlap of content in units. The Health Science course will also have significant overlap in content with BSSS Exercise Science compared to the BSSS Human Biology course. This might make it difficult for students to undertake a major in both Health Science and Biology OR Health Science and Exercise Science. The change in course name from Human Biology to Health Science is also fraught with confusion and how it could be perceived by the students, parents/carers and the ACT community. For example, the title 'Health Science' could be misconstrued to be similar to BSSS Health and Wellbeing, which is not a Science course. This would be akin to saying that studying BSSS Food Science and Nutrition (Science course) is similar to studying BSSS Food Studies (Technology course). There needs to be further consultation and feedback from ACT Human Biology teachers before implementation and delivery across all ACT schools.</p>	<p>to training and performance of athletes. It has a different focus to Health Science even if it touches on similar topics, as is common across many courses in our register.</p> <p>A title cannot do all the work of explaining what a course is. People will inform themselves as necessary. Further, the title reflects the career and tertiary pathways which flow from the course and the names of course that will be undertaken subsequently. It is clearer and more informative to the general community.</p>
	<p>It would be useful to define popular media in more detail. I view this as Instagram and TikTok which I would find difficult to develop resources for as I am not on those platforms and they are constantly changing. It would also be hard to examine the ethical environment as this differs widely not only between cultures but individual institutions.</p>	<p>The advice from the ANU was to introduce students to the professional context and the context of learning in this area which is ethically fraught. There are range of media claims about health and remedies to explore in a range of media formats. It will change regularly.</p>

	NA	
	Rationale of the course is good as Health Science careers are on demand.	Noted
	The scope of the course and outcomes are fine. However I don't think it is distinctive from the Exercise Science and Health & Wellbeing and Biology	<p>The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, Biology courses should be focused on non-human organisms and their functions.</p> <p>Exercise Science is not a science course providing training in the scientific method and thinking and as such is very different in its fundamental ideas and concepts to Health Science. Also, as the name suggests, Exercise Science focuses on exercise, sports physiology, and aspects of the human systems relevant to training and performance of athletes. It has a different focus to Health Science even if it touches on similar topics, as is common across many courses in our register.</p>
The course goals, drawn from the Science Framework, are clear about the intended learning, but allow flexibility in this course.	1,2,3,3,4,5,5	
Comments on applicability of Framework Goals	Refer to comments on Rationale.	Noted
	The Framework Goals itself is fine, however, the course needs further adjustments.	Noted – see below
	None	Noted
	Meets the Science Framework Goals, however, it is rigid in structure and does not allow for flexibility.	The Framework goals are the same for all science courses
	I am not sure about the flexibility, as it would be tricky to teach the units without overlapping with ES, H&W and Biol	The Framework goals are the same for all science courses
	They're fine, quite general and so open to interpretation.	The Framework goals are the same for all science courses

<p>The unit description for 'Human Reproduction and Development' clearly describes the focus and scope for this unit and informs in the planning of the program of learning.</p>	<p>2,1, 4,3,3,5,5,</p>	
<p>The specific unit goals for 'Human Reproduction and Development' are clearly outlined and appropriate to the unit</p>	<p>2,1,4,5,3,5,5</p>	
<p>The content descriptions for 'Human Reproduction and Development' clearly elaborate on the unit description and the specific unit goals</p>	<p>2,1,4,4,3,5,5</p>	
<p>The content descriptions for 'Human Reproduction and Development' allow flexibility for a teacher to plan a program of learning that addresses the learning needs and interests of their students</p>	<p>3,1,4,5,3,5,5,</p>	
<p>Any comments on the unit 'Human Reproduction and Development'</p>	<p>The course is a duplicate of Aging Human Body from the Human Bio course. It does not improve on the existing unit.</p> <p>Similar to Unit 2: The Aging Human Body from the BSSS Human Biology course, which is OK. Currently Reproduction and Development is only taught for a term, so making it a semester unit is a step in the</p>	<p>In each unit, the Health Science course moves from a human body system/s to the health of the system/s. This allows students to apply learning about the system immediately to questions of human health and treatments. This is more consistent with available textbooks and resources and the approaches that will be taken in tertiary courses.</p> <p>In each unit, the Health Science course moves from a human body system/s to the health of the system/s. This allows students to apply learning about the system immediately to</p>

	<p>right direction. This will allow students to learn in more biological detail from the conception phase, pregnancy, birth, infancy, toddler, childhood, adolescence and young adulthood.</p> <p>‘Students explore selected diseases and claims around the efficacy of related therapies’. This needs a bit more refinement. Need to provide specific examples of diseases with strong links to reproduction and development. ‘They evaluate bioethical matters relevant to these body systems’. What does 'bioethical matters' mean? This is included in every unit for the SHAPE Paper. Sounds vague and broad at the same time. Aren't any ethical concerns in Biology considered ‘bioethical’? With context for this unit, is this to do with ART such as IVF? Is it to do with contraception and STI? Should the Health Science course also then include ‘biolegal matters’ and ‘biosocial matters’ for a more holistic overview?</p> <p>‘Students evaluate claims made in the media about health relevant to these systems.’ What kind of claims are made in the media? Claims to do with the reproductive system or claims about women's right to choose? The latter is a legal and social issue rather than a biological one. Is it to do with reproductive diseases, such as endometriosis, that are difficult to diagnose and stigmatised? Is it to do with the taboo topic of abortion? The course developers need to provide more detail on the Development aspect of the unit. What aspect of the developmental process should students learn about? Are teachers only expected to solely teach on the reproductive system, embryo development and pregnancy for an entire semester? This would then negate the Development aspect of the unit, including students being to evaluate claims in the media.</p>	<p>questions of human health and treatments. This is more consistent with available textbooks and resources and the approaches that will be taken in tertiary courses.</p> <p>The developers have provided an Implementation guide for ideas for teachers. Teachers will develop programs of learning and make decisions about which conditions and diseases they would like to focus on in their contexts. These suggestions do not focus on exercise related topics.</p> <p>The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, Biology courses should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed. If schools are not offering both, any question of overlap is irrelevant.</p> <p>Contemporary developments in Health Science curriculum value placing Health questions in their social context, in tackling misinformation and in investigating the ethical minefield health science professionals will have to work. This provides opportunities for deeper understanding of the science by debunking sensational and pseudoscientific claims. This also allows investigation of the practical implications of the science in treatment and lifestyle choices and is an appropriate and well-informed pathway to the tertiary studies.</p>
	<p>This looks to be a strong unit and I can see a logical sequencing in teaching this first. I would like to see further content descriptors about labour and birth as this would be a good opportunity to teach those important aspects of development in sequence</p>	<p>Teachers have flexibility to prioritise topics they think are suitable for their context</p>

	for the unit description, I would suggest it be amended to this: "In this unit, students investigate the reproductive systems, including the role of their specialised cells and tissues and their control by the endocrine system in regulating development. for question 8, the additional implementation guide supports this but the content descriptions on their own don't.	The course developers have made this change
	The unit is interesting but a lot of content seems fast tracked. Will students be taught everything there is to know about the pregnancy stages? Based on the unit description, it focusses mainly on the first trimester.	The developers have provided an Implementation guide for ideas for teachers. Teachers will develop programs of learning and make decisions about what content would like to focus on in their contexts
	Human Reproduction and Development unit is great and doesn't seem to have too much overlap	Noted
	It's fine and does not seem to overlap particularly with other subjects.	Noted
The unit description for 'Healthy Body Systems' clearly describes the focus and scope for this unit and informs in the planning of the program of learning.	2,1,4,3,2,2,2	
The specific unit goals for 'Healthy Body Systems' are clearly outlined and appropriate.	2,1,3,5,2,2,2	
The content descriptions in 'Healthy Body Systems' clearly elaborate on the unit description and the specific unit goals	2,1,3,2,4,4,2	
The content descriptions of 'Healthy Body Systems' allow flexibility for a teacher to plan a program of learning that addresses the learning needs and interests of their students.	3,1,3,4,1,1,2	
Any comments on the unit 'Healthy Body Systems'	Carbon copy of Anatomy and Physiology from Exercise Science.	Exercise Science is not a science course providing training in the scientific method and thinking and as such is very different

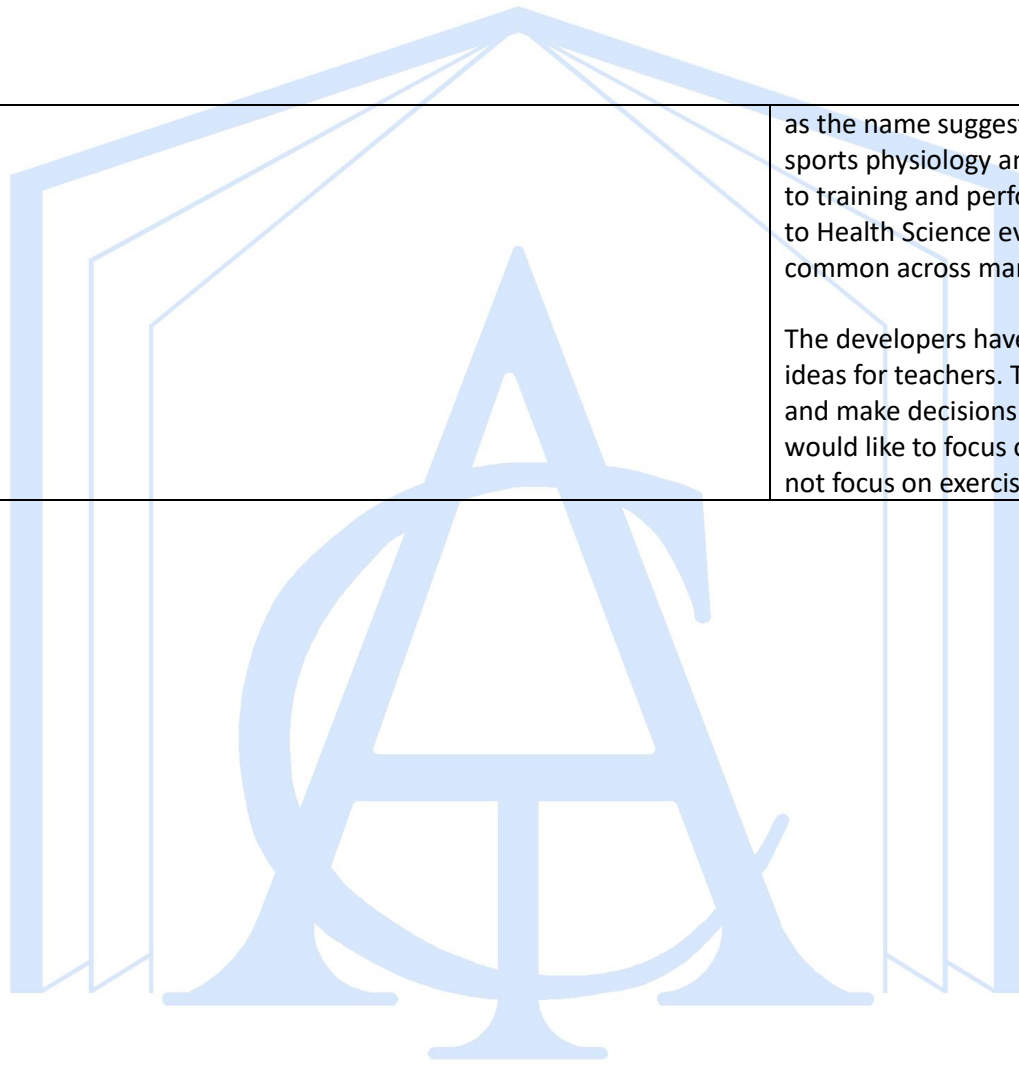
		<p>in its fundamental ideas and concepts to Health Science. Also, as the name suggests, Exercise Science focuses on exercise, sports physiology and aspects of the human systems relevant to training and performance of athletes. It has a different focus to Health Science even if it touches on similar topics, as is common across many courses in our register.</p>
	<p>This unit is identical to Unit 1: Anatomy and Physiology of the Human Body from the BSSS Exercise Science course. In fact, there is a significant overlap - it can even be misconstrued as a copy of the unit. While Exercise Science is not a Science course and falls under Health and PE, a lot of students currently major in both Human Biology and Exercise Science. If Exercise Science students complete Unit 1: Anatomy and Physiology of the Human Body in Semester 1, then they might not be able to do this Health Science unit in Semester 2, as it would be a repeat of what they have already studied.</p> <p>There is not just overlap with Exercise Science but also with the BSSS Biology course where students learn about cardiovascular and respiratory systems in Unit 2: Cells and Organisms. For example, if you have a student who is majoring in Health Science, Exercise Science and Biology, they will be effectively doing 3 heart dissections for 3 different courses! This specific unit could be considered a red flag for current Human Biology and Exercise Science teachers - it needs further refinement to prevent overlap of content. If this is not possible, this unit needs to be replaced with something akin to Unit 4: Treating the Human Body from the BSSS Human Biology course. 'They evaluate bioethical matters relevant to these body systems. Students evaluate claims made in the media about health relevant to these systems'. As stated previously, this is included with every Health Science unit in the Shape Paper. Further clarification needs to be provided for clarity, conciseness and consistency in teaching across the ACT College. When some teachers think about bioethical matters to do with the musculoskeletal system, they would think of doping in</p>	<p>Exercise Science is not a science course providing training in the scientific method and thinking and as such is very different in its fundamental ideas and concepts to Health Science. Also, as the name suggests, Exercise Science focuses on exercise, sports physiology and aspects of the human systems relevant to training and performance of athletes. It has a different focus to Health Science even if it touches on similar topics, as is common across many courses in our register.</p> <p>The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, the Biology course should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed. If schools are not offering both, any question of overlap is irrelevant.</p> <p>The developers have provided an Implementation guide for ideas for teachers. Teachers will develop programs of learning and make decisions about which conditions and diseases they would like to focus on in their contexts. These suggestions do not focus on exercise related topics.</p> <p>Contemporary developments in Health Science curriculum value placing Health questions in their social context, in</p>

	<p>sports or artificial limbs.....but that would be more relevant to students studying Exercise Science rather than Health Science.</p>	<p>tackling misinformation and in the ethical minefield health science professionals will have to work. This provides opportunities for deeper understanding of the science and also its practical implications.</p>
	<p>I like the clear emphasis on three important body systems but I can easily see how this may create duplication of content across the Biology and exercise science courses</p>	<p>There won't be duplication with Exercise Science because it is not a science course and focused on athletic performance. It will have different problems and issues. The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, the Biology course should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed.</p>
	<p>The title of this unit is misleading and not reflective of a tertiary academic course, would be more suited for middle school level. All systems in the body can be healthy or not. By stating this it appears you are implying a unit about how to maintain healthy body systems whereas we will be exploring diseases as well here. This requires renaming. For question 11, this reads like something that belongs in PE. This needs revisiting. For the content descriptions, not sure why this is here "metabolically healthy obesity" as this is related to exercise and nutrition- not really aligned. Again, without the implementation guide it lacks a lot of clarity.</p>	<p>The unit title has been changed to Cardiorespiratory Health</p>
	<p>The unit covers anatomy and physiology for the musculoskeletal system. I have been alerted by my Exercise Science colleagues that it is similar to what they teach in Unit 1.</p>	<p>There won't be duplication with Exercise Science because it is not a science course and focused on athletic performance. It will have different problems and issues.</p>
	<p>There is so much overlap with ES and Biology in the is unit. Where the onus placed to make sure the is minimal overlap in assessment items? On Biology teachers which an Australian Curriculum course? Or the ES teachers?</p>	<p>There won't be duplication with Exercise Science because it is not a science course and focused on athletic performance. It will have different problems and issues. The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, the Biology course should be focused on non-human organisms and their</p>

		functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed.
	Very concerned about the high degree of overlap here with both biology and exercise science, both of which cover these body systems in detail. Also, this is supposed to be a practical science subject, what practical activities are allowed for here? I notice the electrical conduction system is mentioned, but this type of equipment would not be available to all schools. It would be nice to have some topics that actually allow practical work to be undertaken. At least previously when we looked at the histology of the cardiovascular system there was a chance to do some microscopy and it was less overlap with the other courses as they don't really look at the tissue structure microscopically.	There won't be duplication with Exercise Science because it is not a science course and focused on athletic performance. It will have different problems and issues. The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, the Biology course should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed.
The unit description for 'Maintenance of the Body' clearly describes the focus and scope for this unit and informs in the planning of the program of learning.	3,2,3,3,2,3	
The specific unit goals for 'Maintenance of the Body' are clearly outlined and appropriate to the unit	3,2,3,5,3,2,2	
The content descriptions for 'Maintenance of the Body' clearly elaborate on the unit description and the specific unit goals.	3,2,3,5,3,2,2	
The content descriptions for 'Maintenance of the Body' allow flexibility for a teacher to plan a program of learning that	3,2,3,3,2,2,2	

<p>addresses the learning needs and interests of their students</p>		
<p>Any comments on the unit 'Maintenance of the Body'.</p>	<p>Similar to Unit 4 in Biology.</p>	<p>The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, Biology courses should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed. If schools are not offering both, any question of overlap is irrelevant.</p> <p>Collaboration with colleagues from different faculty areas may be beneficial to create programs of learning and avoid any potential duplication</p>
	<p>This unit is identical to Unit 2: Cells and Organisms from the BSSS Biology course, where students learn about the digestive system. Urinary system content is also taught in Unit 4: The Internal Environment from the BSSS Biology course . In a nutshell, this unit has significant overlap in learning about the anatomy and physiology of the gastrointestinal and urinary systems with the BSSS Biology course. 'They evaluate the impact of nutrition on health.' This is interesting for students to study, however, nutritional health and principles is covered extensively in Unit 3: Preparation for Training and Performance from the BSSS Exercise Science course. Examples of conditions/diseases that affect the digestive and urinary systems have been included for this unit, such as cirrhosis, celiac disease, gout, and IBS for students to explore and study further. However, there is still the issue of overlap in content with the Biology and Exercise Science courses.</p> <p>Again, this unit would need further refinement so students who do Biology and Exercise Science do not 'double dip' learning similar content in Health Science.</p>	<p>In each unit, the Health Science course moves from a human body system/s to the health of the system/s. This allows students to apply learning about the system immediately to questions of human health and treatments. This is more consistent with available textbooks and resources and the approaches that will be taken in tertiary courses.</p> <p>The Biology course need not cover any aspect of human body systems or health. In school offering both Health Science and Biology, Biology courses should be focused on non-human organisms and their functions, though human aspects may be mentioned in passing. If students undertake both courses they may gain an understanding of how different organisms have developed. If schools are not offering both, any question of overlap is irrelevant.</p> <p>Exercise Science is not a science course providing training in the scientific method and thinking and as such is very different in its fundamental ideas and concepts to Health Science. Also,</p>

		<p>as the name suggests, Exercise Science focuses on exercise, sports physiology and aspects of the human systems relevant to training and performance of athletes. It has a different focus to Health Science even if it touches on similar topics, as is common across many courses in our register.</p> <p>The developers have provided an Implementation guide for ideas for teachers. Teachers will develop programs of learning and make decisions about which conditions and diseases they would like to focus on in their contexts. These suggestions do not focus on exercise related topics.</p>
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



B S S S