

UNIT OUTLINE
MATHEMATICS, SCIENCE, AND IT ACADEMY
SEMESTER 1 2021

Year: 11 and 12, 2021

Accreditation: A and T

Timetable Period: Semester 1 2021

Classroom Teacher: Helen Souflias-Mantinaos and Miriam Ambrose

Executive Teacher: Debbie O'Brien

Course Title	Human Biology Accredited & Tertiary	Course Code:	Course Code T: 2171 A: 2176
Semester Unit	Unit 3: Human Health & the Environment	Unit Value/Code: T: 23025 A: 23456	Unit Value:1.0
Term Unit (a)	Unit 3a: Human Health & the Environment	Unit Value/Code: T: 23026 A: 23457	Unit value: 0.5
Term Unit (b)	Unit 3b: Human Health & the Environment	Unit Value/Code: T: 23027 A: 23458	Unit Value: 0.5

Specific Unit Goals:

The specific goals of this unit are for students to:

A Course	T Course
<ul style="list-style-type: none"> • understand the links between environmental conditions and human health. • understand that diseases, and the response to them, can be considered on a local or global scale. • understand that changing climatic conditions will have significant effects on the incidence and spread of zoonotic diseases. • understand that some mental health issues have a biological basis. • understand how some mental health issues affect the individual's body systems • use science inquiry skills to conduct and communicate investigations into environmental conditions that can affect human health. • describe claims about the relationship between mental health and social status. • communicate human biological understanding using qualitative representations in appropriate modes and genres. 	<ul style="list-style-type: none"> • understand the links between environmental conditions and human health. • understand that diseases, and the response to them, can be considered on a local or global scale. • understand that changing climatic conditions will have significant effects on the incidence and spread of zoonotic diseases. • understand that some mental health issues have a biological basis. • understand how some mental health issues affect the individual's body systems. • use science inquiry skills to design, conduct, evaluate and communicate investigations into environmental conditions that can affect human health. • evaluate, with reference to empirical evidence, claims about the relationship between mental health and social status. • communicate human biological understanding using qualitative and quantitative representations in appropriate modes and genres.

Content Summary:

This unit investigates the impact of environmental conditions upon the health of humans both at the individual and population level. The World Health Organisation believes that “environmental risk factors, such as air, water and soil pollution, chemical exposures, climate change, and ultraviolet radiation, contribute to more than 100 diseases”, much of which is preventable with the appropriate planning. The environmental causes of disease will be considered, based on the nature of the risk: biological, chemical, physical, and social. Students will also interrogate the environmental and demographic markers of specific chronic diseases such as the link between asbestosis and mining and malaria and living in the tropics. With climate change, the parameters that not only affect the physical environment, but also the spread of biological risks will increase the global burden of disease, particularly zoonotic diseases. Some simple solutions are promoting safe household water storage and safer management of toxic substance storage and use. Students will consider not only the expression of specific environmental diseases but also how the risk can be reduced and possible solutions.

Mental health is an important aspect of human health. Good mental health will be defined. Mental illness will be described as well as its causes, symptoms, and treatment. Major mental health issues that affect teenagers will be considered to give the content real world relevance for the students.

Through the investigation of appropriate contexts, students will explore how the physical and social environment affects health by using evidence from multiple disciplines and with the use of ICT and other technologies. Students investigate how scientific knowledge is used to offer valid explanations and reliable predictions, and the ways in which scientific knowledge interacts with social, economic, cultural and ethical factors.

Students will use their scientific inquiry skills to explore the relationship between environment and illness, by investigating real world cases and constructing and using appropriate representations to analyse data gathered. They also develop their skills in constructing plausible explanation and predictions for a range of environmental health issues.

Further elaboration on the content of this unit is available at:

<http://www.bsss.act.edu.au/curriculum/courses>

Cost of Materials:

A requirement of a term/semester class booklet at a cost of \$5/term or semester, as specified.

Assessment:

TASK	DUE DATE	WEIGHTING
Assignment 1	Week 4	25%
Exam 1	Exam week	25%
Assignment 2	Week 14	25%
Exam 2	Exam week	25%

SPECIFIC ENTRY & EXIT REQUIREMENTS FOR TERM UNITS:

This is a Semester Unit; students wishing to enter or exit after the end of term must have the change approved by the Academy Executive Leader and need to complete 50% of the assessment

ASSESSMENT CRITERIA FOR ASSESSMENT AND REPORTING OF STUDENT ACHIEVEMENT

Students will be assessed on the degree to which they demonstrate:

- an ability to respond critically to texts and logically justify viewpoint
- an ability to evaluate and synthesise material to make meaning
- imagination and originality
- competent and effective use of language for a range of purposes and audiences
- control of appropriate medium.

Attendance and Participation

It is expected that students will attend and participate in all scheduled classes/contact time/structured learning activities for the units in which they are enrolled unless there is due cause and adequate documentary evidence is provided. Any student whose attendance falls below 90% of the scheduled classes/contact time or 90% participation in structured learning activities in a unit, without having due cause with adequate documentary evidence will be deemed to have voided the unit. However, the principal has the right to exercise discretion in special circumstances if satisfactory documentation is supplied.

Completion of Assessment Items

Students are expected to substantially complete and submit all assessment items. Exemption from an item and/or alternative assessment without penalty is available to students providing adequate documentary evidence. To meet the minimum assessment requirements of a unit, a student must substantially complete and submit at least 70% of the total assessment. However, the principal has the right to exercise discretion in the award of a grade or score in special circumstances where satisfactory documentation is supplied.

Late Submission of Assessment Items

Students are encouraged to submit work on time as this is a valuable organisational skill. Students are also encouraged to complete work even if it is late as there are educational benefits in so doing. The following policy is to ensure equity for all students:

- All assessment tasks are expected to be submitted by the specified due date
- Where marks are awarded for assessment tasks, a late penalty will apply unless an extension is granted. The penalty for late submission is 5% of possible marks per calendar day late, including weekends and public holidays, until a notional zero is reached. If an item is more than 7 days late, it receives the notional zero. Submission on weekends or public holidays is not acceptable. Calculation of a notional zero is based on items submitted on time or with an approved extension (Refer to Notional Zeros)
- Where marks are not awarded, and a grade only is given for an assessment task, teachers will take into account the extent to which students have demonstrated their ability to complete and submit the task by the due date (taking into account any extensions granted) in awarding the grade
- Unless there are exceptional circumstances, students must apply for an extension to the specified due date in advance, providing due cause and adequate documentary evidence for late submission
- It may not be possible to grade or score work submitted late after marked work in a unit has been returned to other students
- The principal has the right to exercise discretion in the application of the late penalty in special circumstances where satisfactory documentation has been provided.

Notional Zeros

Where students fail to hand in assessment items for which marks are awarded, they will be awarded a notional zero for that assessment item. The notional zero will be a score, which lies between 0.1 of a standard deviation below the lowest genuine score for that item and zero. Note: if the lowest genuine score is zero, the notional zero is zero.

Cheating and Dishonest Practice

The integrity of the College's assessment system relies upon all involved acting in accordance with the highest standards of honesty and fairness. Plagiarism is the copying, paraphrasing, or summarising of work, in any form, without acknowledgement of sources, and presenting this as a student's own work. Examples of plagiarism could include, but are not limited to:

- submitting all or part of another person's work with/without that person's knowledge
- submitting all or part of a paper from a source text without proper acknowledgement
- copying part of another person's work from a source text, supplying proper documentation, but leaving out quotation marks
- submitting materials which paraphrase or summarise another person's work or ideas without appropriate documentation
- submitting a digital image, sound, design, photograph, or animation, altered or unaltered, without proper acknowledgement of the source.

Right to Appeal

The ACT system operates a hierarchy of reviews and appeals:

- Student seeks review from teacher regarding assessment task mark/grade, unit score, unit grade, course score
- Student seeks review from head of department, if required following review by teacher
- Student appeals to her/his college principal for a review of college assessment relating to assessment task grade/mark, unit grade, unit score, course score, penalty imposed for breach of discipline in relation to assessment
- Student, who has been through the college appeal process, may appeal to the Board against the college procedures by which the appeal decision was reached.

Further information on relevant BSSS policies can be found here:

http://www.bsss.act.edu.au/The_Board/policy_and_procedures_manual