

EXTERNAL ASSESSMENT SPECIFICATIONS

BIOLOGY (BIO315116)

External Assessment Specifications inform the development of external assessments. The primary audience for this document is the course Setting Examiner and Exam Critics. It may also be of use to teachers and students.

These specifications must be read in conjunction with the Course Document.

The external assessment consists of a **3 hour written examination**

The criteria to be externally assessed are:

Written examination:

- Criterion 2: develop, interpret and evaluate biological experiments
- Criterion 5: describe and apply concepts and processes of the chemical basis of life
- Criterion 6: describe and apply concepts and processes involving cells
- Criterion 7: describe and apply concepts and processes within organisms
- Criterion 8: describe and apply concepts and processes related to continuity of organisms and survival of changes

WRITTEN EXAMINATION STRUCTURE

The following specifications for each section are outlined in **Table** below:

- the distribution across the sections of:
 - criteria
 - time allocations
- the number and type of items.

Section	1	2	3	4	5
Criteria	Criterion 2	Criterion 5	Criterion 6	Criterion 7	Criterion 8
Course content	Develop, interpret and evaluate biological experiments related to: The Chemical basis of Life; Cells; Organisms; Continuity of organisms and survival of changes	The chemical basis of life	Cells	Organisms	Continuity of organisms and survival of changes
Number and nature of items	From 4 - 6 items, mostly broken into parts Parts within items are arranged in order of difficulty. Types of questions may be of the following format: Formulating a hypothesis (3 marks) Design a controlled experiment Understanding the role of abiotic and biotic factors	From 4 - 6 items, mostly broken into parts Parts within items are arranged in order of difficulty Includes analytical and interpretive items involving: - Tables - Graphs - Biological diagrams - Diagrams - Schematic diagram / model	From 4 - 6 items, mostly broken into parts Parts within items are arranged in order of difficulty Includes analytical and interpretive items involving: - Tables - Graphs - Biological diagrams - Diagrams - Schematic diagram / model	From 4 - 6 items, mostly broken into parts Parts within items are arranged in order of difficulty Includes analytical and interpretive items involving: - Tables - Graphs - Biological diagrams - Diagrams - Schematic diagram / model	From 4 - 6 items, mostly broken into parts Parts within items are arranged in order of difficulty Includes analytical and interpretive items involving: - Tables - Graphs - Biological diagrams - Diagrams - Schematic diagram / model

Section	1	2	3	4	5
	Includes analytical and interpretive items involving: <ul style="list-style-type: none"> - Tables - Graphs - Biological diagrams - Diagrams - Schematic diagram / model Items based on practical work may be included. Evaluate method and suggest improvements	Items based on practical work may be included.	Items based on practical work may be included.	Items based on practical work may be included.	Items based on practical work may be included.
Compulsory or optional	All	All	All	All	All
Item type(s) / format	<p><i>Context of the item</i> Some extended items are non-routine</p> <p><i>Scenarios of the item</i> Some scenarios of items are real-world scenarios</p> <p><i>Response format</i> A balance of items ranging from short to extended</p> <p><i>Assessment of responses</i> Responses range from closed-ended to open-ended.</p>	<p><i>Context of the item</i> Some extended items are non-routine</p> <p><i>Scenarios of the item</i> Some scenarios of items are real-world scenarios</p> <p><i>Response format</i> A balance of items ranging from short to extended</p> <p><i>Assessment of responses</i> Responses range from closed-ended to open-ended.</p>	<p><i>Context of the item</i> Some extended items are non-routine</p> <p><i>Scenarios of the item</i> Some scenarios of items are real-world scenarios</p> <p><i>Response format</i> A balance of items ranging from short to extended</p> <p><i>Assessment of responses</i> Responses range from closed-ended to open-ended.</p>	<p><i>Context of the item</i> Some extended items are non-routine</p> <p><i>Scenarios of the item</i> Some scenarios of items are real-world scenarios</p> <p><i>Response format</i> A balance of items ranging from short to extended</p> <p><i>Assessment of responses</i> Responses range from closed-ended to open-ended.</p>	<p><i>Context of the item</i> Some extended items are non-routine</p> <p><i>Scenarios of the item</i> Some scenarios of items are real-world scenarios</p> <p><i>Response format</i> A balance of items ranging from short to extended</p> <p><i>Assessment of responses</i> Responses range from closed-ended to open-ended.</p>
Response time	Approximately 36 marks	Approximately 36 marks	Approximately 36 marks	Approximately 36 marks	Approximately 36 marks

Section	1	2	3	4	5
Mark / rating allocation (weighting must be specified)	Approximately 36 marks	Approximately 36 marks	Approximately 36 marks	Approximately 36 marks	Approximately 36 marks
Item Definitions	<p><i>Routine context</i> These items require rehearsed responses and/or rehearsed skills in the application of biological concepts and principles, interpretation and evaluation, and in familiar contexts.</p> <p><i>Non-routine context</i> These items require procedures not previously encountered in expected prior learning activities. These require the combination, and sometimes the selection, of a set of skills in unfamiliar contexts.</p> <p><i>Real-world scenarios</i> These items relate concepts of biology to phenomena in the real world.</p> <p><i>Short response format</i> These items are composed of a brief prompt that demands a response to some stimulus material that varies from a single response to a few written points. This sort of item is suited to assessing the candidate's ability to:</p> <ul style="list-style-type: none"> o recall specific information and methods related to key content o apply rehearsed methods to familiar situations <p>demonstrate understanding of key concepts in previously unseen stimulus material.</p> <p><i>Extended response format</i> These items involve lengthy or multi-stage responses of increasing complexity. Greater complexity may be due to one or more of, but not limited to, the following:</p> <ul style="list-style-type: none"> o a greater cognitive demand of biological concepts o the necessity to select appropriate information <p>justification of a response via a logical line of reasoning.</p> <p><i>Closed-ended response</i> These are items for which there is a single 'correct' or 'best' response.</p>				

Section	1	2	3	4	5
	<i>Open-ended response</i> These are items for which there may be multiple correct responses OR in which the quality of the argument and/or the expression is being assessed.				

ASSESSMENT

A set of solutions or a marking tool will be developed by the Setting Examiner, provided to markers at the marking meeting that follows the external written examination; and will be available from TASC in the following year.

The external assessment must include items that, separately or together, give opportunities to demonstrate the standards from rating C to rating A.

Final results will be awarded as a rating of A, B, C, t or z in the above criteria. These ratings are used in determining the final award according to the algorithm in the course document.

WRITTEN EXAMINATION CHECKLIST

SECTION 1

- Assesses all aspects of Criterion 2.
- Items give opportunities to demonstrate standards from rating C to rating A
- Includes representative course content from all Science Understanding sections
- There are 4 - 6 items, mostly broken into parts
- Parts within items are arranged in order of difficulty
- Some extended items are non-routine
- Some scenarios of items are real-world
- Items have a balanced range of short to extended response formats
- Responses range from closed-ended to open-ended

SECTION 2

- Assesses all aspects of Criterion 5.
- Items give opportunities to demonstrate standards from rating C to rating A
- Includes representative course content from 'The chemical basis of life'
- There are 4 - 6 items, mostly broken into parts
- Parts within items are arranged in order of difficulty
- Include analytical and interpretive items
- Items on based on practical work
- Some extended items are non-routine
- Some scenarios of items are real-world
- A balance of items ranging from short to extended
- Responses range from closed-ended to open-ended

SECTION 3

- Assesses all aspects of Criterion 6.
- Items give opportunities to demonstrate standards from rating C to rating A
- Includes course content from 'Cells'
- There are 4 - 6 items, mostly broken into parts
- Parts within items are arranged in order of difficulty
- Include analytical and interpretive items
- Items on based on practical work
- Some extended items are non-routine
- Some scenarios of items are real-world
- A balance of items ranging from short to extended
- Responses range from closed-ended to open-ended

SECTION 4

- Assesses all aspects of Criterion 7.
- Items give opportunities to demonstrate standards from rating C to rating A
- Includes course content from 'Organisms'
- There are 4 - 6 items, mostly broken into parts
- Parts within items are arranged in order of difficulty
- Include analytical and interpretive items
- Items on based on practical work
- Some extended items are non-routine
- Some scenarios of items are real-world
- A balance of items ranging from short to extended
- Responses range from closed-ended to open-ended

SECTION 5

- Assesses all aspects of Criterion 8.
- Items give opportunities to demonstrate standards from rating C to rating A
- Includes course content from 'related to the continuity of organisms and survival of changes'
- There are from 4 - 6 items, mostly broken into parts
- Parts within items are arranged in order of difficulty
- Include analytical and interpretive items
- Items on based on practical work
- Some extended items are non-routine
- Some scenarios of items are real-world
- A balance of items ranging from short to extended
- Responses range from closed-ended to open-ended