The Human Endocrine System
Definition of the domain for summative evaluation

Biology
Secondary V

The Human Endocrine System
This definition of the domain for summative evaluation describes and classifies the essential and representative elements of the Biology program—specifically, for the course *The Human Endocrine System*. It presents an overview of the program, but should by no means replace the program itself. The purpose of defining the domain is to ensure that all the instruments for summative evaluation are consistent with the overall program.

This definition of the domain is organized in the same way as it is in other courses. The content of each section is, however, specific to this course.

The definition of the domain for summative evaluation is used to prepare examinations that are valid from one version to another, from year to year, and from one school board to another, taking into account the responsibilities shared by the Ministère de l’Éducation and the school boards.
## 2. Program Orientations and Consequences for Summative Evaluation

<table>
<thead>
<tr>
<th>Orientations</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this program is to help students acquire knowledge of human</td>
<td>Evaluation will test the students’ knowledge of anatomical and physiological concepts of the human</td>
</tr>
<tr>
<td>anatomy and physiology.</td>
<td>endocrine system.</td>
</tr>
<tr>
<td>The purpose of this program is to help students understand how the human</td>
<td>Evaluation will test the students’ understanding of how the human endocrine system functions.</td>
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<tr>
<td>body functions.</td>
<td>Evaluation will test the students’ ability to establish relationships between acquired anatomical and</td>
</tr>
<tr>
<td>The purpose of this program is to help students understand the causes and</td>
<td>physiological concepts and the principal health problems associated with the human endocrine system.</td>
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<tr>
<td>effects of the principal health disorders associated with the human body</td>
<td></td>
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<tr>
<td>and the factors that contribute to its health.</td>
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</tbody>
</table>
3. Course Content for Purposes of Summative Evaluation

Themes

• Anatomy of the Endocrine System
  – Description of the endocrine system:
    - name of endocrine structures
    - description of endocrine structures
    - role of endocrine structures
    - diagram

• Physiology of the Endocrine System
  – Regulatory function of the endocrine system and hormones
  – Distinction between types of glands:
    - endocrine
    - exocrine
    - mixed
  – Hormones secreted by endocrine organs:
    - stomach
    - pancreas
    - kidneys
    - testicles
    - ovaries
  – Hormones secreted by endocrine glands:
    - thyroid
    - parathyroid
    - adrenal
    - pituitary

• Endocrine Health
  – Dysfunction in endocrine organs:
    - stomach
    - pancreas
    - kidneys
The Human Endocrine System

Definition of the Domain

- Dysfunction in endocrine glands
  - thyroid
  - parathyroid
  - adrenal
  - pituitary

Skills

- **Describing**: Observing, identifying or recalling the characteristics of a phenomenon or the components of a system.

- **Explaining**: Showing in a structured way the nature and interaction of complex relationships between objects or phenomena.
### 4. Table of Dimensions

<table>
<thead>
<tr>
<th>Themes</th>
<th>Anatomy of the Endocrine System 25%</th>
<th>Physiology of the Endocrine System 50%</th>
<th>Endocrine Health 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describing 65%</td>
<td>Description of endocrine system</td>
<td>Distinction between types of glands (10%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- name of structures</td>
<td>Hormones secreted by endocrine organs (15%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- description</td>
<td>Hormones secreted by endocrine glands (15%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- role</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- diagram</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) 25%</td>
<td>(2) 40%</td>
<td></td>
</tr>
<tr>
<td>Explaining 35%</td>
<td>Regulatory function</td>
<td></td>
<td>Dysfunction in endocrine organs (12%)</td>
</tr>
<tr>
<td></td>
<td>(3) 10%</td>
<td></td>
<td>Dysfunction in endocrine glands (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4) 25%</td>
</tr>
</tbody>
</table>
5. Observable Behaviours

Dimension 1
– Name the endocrine structures (organs and glands) indicated on a diagram of the human body and associate each of these structures with roles and descriptive elements appearing on a list. (The list should contain more roles and descriptive elements than are required.) (25%)

Dimension 2
– Classify glands as endocrine, exocrine or mixed, and justify the classification. (10%)
– Given the names of hormones secreted by endocrine organs, specify the role of each hormone and name the organ that secretes it. (15%)
– Given the names of hormones secreted by endocrine glands, specify the role of each hormone and name the gland that secretes it. (15%)

Dimension 3
– Given a series of statements, choose those that correctly illustrate and explain the regulatory function of the endocrine system and of hormones. Correct false statements to make them valid. (10%)

Dimension 4
– Given the names of hormones secreted by endocrine organs, explain the imbalances that are associated with an excess or shortage of these hormones. (12%)
– Given the names of hormones secreted by endocrine glands, explain the imbalances that are associated with an excess or shortage of these hormones. (13%)
6. Explanation of Content and Weighting

In establishing the relative importance of the themes Anatomy, Physiology and Health, greater weight has been assigned to understanding how the endocrine system functions and the factors that help maintain its health, than to memorizing anatomical structures.

The relative importance of each skill to be developed has been determined by adding up the weightings given to the observable behaviours pertaining to that skill.

On the basis of the tasks prescribed by the terminal objectives of the program, the weighting of the themes and skills has been established as follows:

- Dimensions related to the theme Anatomy 25%
- Dimensions related to the theme Physiology 50%
- Dimensions related to the theme Health 25%
- Dimensions related to the skill Describing 65%
- Dimensions related to the skill Explaining 35%
7. Description of the Examination

A. Type of Examination

The summative examination is a written examination administered at the end of the course. It is designed to measure all of the dimensions and counts for 100% of the final mark. It consists of structured-response and short-response items.

B. Characteristics of the Examination

The examination is written at the end of the course in a single session lasting no more than 120 minutes.

C. Pass Mark

The pass mark for the entire examination is 60%.