2. AIMS AND OBJECTIVES

A. General Aims

The aims of the course are to:

(a) stimulate students’ interest in, and enthusiasm for, the study of geography and the world around them,
(b) equip students with an understanding of man-environment systems in different landscapes,
(c) develop a range of concepts and skills which can foster the analysis of problems, critical thinking, and the making of sound judgements and decisions,
(d) help students to develop personal and social values that contribute to the betterment and well-being of mankind.

B. Specific Objectives

Knowledge

Students should acquire knowledge of man-environment systems in natural, agricultural, urban and industrial landscapes, developed through an understanding:

(a) of distinctive landscapes by using selected examples,
(b) of the principal components of these man-environment systems,
(c) of the interaction between man and his environment,
(d) of the role of man’s perception of his environment, and the choices and decisions he makes as a result of this perception, in creating distinctive landscapes,
(e) that man is a part of a system comprising physical, biological and socio-cultural environments,
(f) that man’s place in the system enables him to alter the inter-relationships: the nature and magnitude of the changes are often a result of man’s decisions and activities.

Techniques and Skills

Students should be able to:

(a) read, understand and interpret a variety of maps, charts and diagrams at different scales,
(b) identify and interpret the interrelationships of physical and cultural elements of landscapes from ground and aerial photographs and from topographic maps,
(c) observe, measure and record systematically and accurately data which are relevant to the solution of geographical problems, both in the field and in the classroom,
(d) draw appropriate illustrations (maps, diagrams, models, landscapes sketches, graphs) and use them to complement and add to written information,

(e) abstract, interpret and use written materials such as reports, tables, census data, newspaper reports, extracts from relevant journals, magazine articles,

(f) select and apply elementary statistical techniques (sampling methods; measures of central tendency, deviation and variability; correlation; statistical diagrams),

(g) construct and test hypotheses in the classroom and the field in order to solve geographical problems,

(h) present material and arguments in a structured and logical manner and by using appropriate geographical terminology.

Values

Students should:

(a) be aware of geographical problems found in Hong Kong and in other parts of the world, and committed to the need to maintain and improve the quality of man-environment systems in Hong Kong and elsewhere,

(b) be aware of the interdependence of communities throughout the world, and the need for international co-operation and good will,

(c) be aware of the value and the special contribution which geographers make to the solution of man-environment problems.
3. GUIDING PRINCIPLES AND BASIC ORGANIZING CONCEPTS

A. Guiding Principles

The value of geography in general and in the sixth form in particular lies with its emphasis on specialization and its ability to bridge the gap between the humanities and sciences, its emphasis on spatial perspectives and the influence of decisions on the way the world is organized and its focus on data handling. At the sixth form level, the following areas of concern should be emphasized:

(a) Geographical knowledge at both the global and the local scales
Knowledge is needed of places, peoples and ways of life and of the concepts which seek to explain spatial differences within man-environment systems. Such knowledge helps students to make sense of current events and make informed judgements about social and environmental issues.

(b) Environmental awareness
An awareness of the environment is crucial. It involves the way people use and misuse the environment and the way it can be managed for its healthy and sustainable future.

(c) Social awareness
An understanding of cultural differences both within Hong Kong society and elsewhere in the world is essential to appreciate spatial differences and man’s responses to problems.

(d) The development of an enquiring mind
Geography seeks to arouse and satisfy the young person’s curiosity about the world and the desire to make sense of what is seen. It aims to enhance the ability to look at social and environmental issues in a geographical way by asking questions such as:
- What can be observed?
- Where are the features located?
- Why are they there?
- What generalizations can be made?
- How will they develop?
- How ought they change?

In arriving at answers to these questions particular emphasis is required in the enhancement of geographical skills to understand spatial information through maps and other forms of illustration.

To help students to gain a thorough understanding of this geographical curriculum, students’ attention should be drawn to the following when interpreting the syllabus content:
(a) Physical and cultural elements of a landscape may be organized or grouped into natural and cultural units and regions.

(b) Units and regions may possess closely similar or highly dissimilar characteristics, and changes in character from one unit or region to another may be abrupt or gradual.

(c) Modifications of spatial characteristics are continually occurring.

(d) Contrasting interactions of processes may be revealed at given points in time.

B. Basic Organizing Concepts

Landscapes, systems and man-environment systems are the three organizing concepts on which this curriculum is based. The integration of these three concepts forms the foundation of the curriculum. Students need to develop the ability to use relevant facts to show comprehension, application, analysis and synthesis of these organizing concepts. In order to help students to grasp the meaning of these concepts in the context of this curriculum, these three concepts are explained as follows:

(a) Landscapes

This refers to an area comprising a distinct association of forms, both natural and cultural. Landscape elements include physical and biological features (landforms, vegetation, etc.) and cultural features (houses, roads, crops, etc.). They are woven into a system by processes resulting from the activities of people and nature, or from the interplay of the two.

The study of landscape in geography highlights the integrated characteristics of the discipline and is a useful means to look at man-land relationship with reference to specific areas/regions. Emphasis has to be put on studying the complex interactions and feedback that exist between man and socio-economic elements on one end, and resources and the natural environment on the other.

(b) Systems

A system is an interacting set of components where a change in one component will lead to changes throughout. The effect of change in time and space needs to be emphasized. A system can be divided into levels of sub-systems to meet particular purposes. This allows effective study of processes and forms, and relationships at different scales and depth. For example, ecosystem is a particular type of system. It can be viewed as a functioning interacting system of living organisms and their effective environment. The idea of ecosystem is of value both as a specific concept in biogeography and as organizing ideas in many man-environment situations.
(c) **Man-environment systems**

This expresses the way in which people interact with their cultural and physical surroundings. It expresses the way in which people are able to organize the environment for their own use with resultant landscape changes on the one hand, and be restricted by environmental constraints on the other.

A man-environment system is a complex system made up of two large sub-systems—the physical environmental sub-system and human activities sub-system. Changes in the cycling of materials, and exchanges of energy and information, etc., form the basis of study. The study of man-land relationship helps students to identify the causes of problems, understand the relationship between elements and the interaction between people and land, and explore possibilities of achieving the better use of resources and maintaining the sustainability of the system.
4. SYLLABUS CONTENT AND CURRICULUM GUIDE

A. Landscape Interpretation

Landslapes with varying degrees of human impact are used as the basis for system study:

I. Natural Landscapes

II. Agricultural Landscapes

III. Urban and Industrial Landscapes

Each landscape should be studied with reference to the components, forms and processes which make it distinctive from, or similar to, other landscapes. Students are expected to demonstrate the ability to analyse landscape information. They should be able to:

(a) extract information from varying sources of data,
(b) identify the main components and linkages within the system, and
(c) draw explanatory inferences, in the context of the geographical concepts they have learnt.

With respect to the content areas, students should be able to recognize:

(a) the nature of the environmental processes and responses,
(b) people’s ability to perceive the environment and how it influences their decision-making in exploitation,
(c) the effects of this exploitation on the spatial distribution of people’s activities and the effects of the distribution of people’s activities on the ecosystem as a whole,
(d) the effects of economic, political, social and cultural systems.

Students should be able to identify solutions to geographical problems. They should also be able to assess the effectiveness of these solutions.

The key issues of concern include:

(a) What factors, and in what order of significance, contribute to the distinctiveness of particular landscapes?
(b) To what extent do these factors reveal similarities and differences between places?
(c) Can broadly similar areas be identified and classified into landscape regions?

These issues can be resolved into the following questions:

(a) What features are visible on the earth’s surface?
(b) Where on the earth’s surface are these features located?
(c) Why, or by what chain of events, are they there?
(d) How are the features related spatially and functionally?
B. Case Studies

Case studies help extend learning beyond the theoretical context. They help students to relate concepts to reality within each of the landscapes, and test the applicability of theories and models.

Case studies are a useful means of bringing reality to students' understanding. It may sometimes be possible to use case studies which embrace a number of key ideas. This will enable synthesis of knowledge. In some situations, the use of more limited specific examples which serve to illustrate a number of concepts may also be appropriate. However, an ability merely to quote named examples is insufficient to meet the requirement of this curriculum. The case studies chosen should be consistent with the general themes and suggested interpretation of landscapes outlined in the content areas. They should also conform to the objectives stated in unit two of this curriculum.

Depending on the time available, one or more case studies or detailed examples should be used within each of the natural, agricultural, urban and industrial landscapes. However, there is no definite rule regarding the nature and number of case studies.

The selection of case studies will depend on their relevancy to the study of a particular topic. Some case studies are better developed at a micro scale whereas for others, a macro scale may be applicable. It is highly desirable to allow comparisons within Asia and outside Asia. However, this curriculum is not intended to provide a comprehensive regional/continental coverage.

C. Content Areas

1. Natural Landscapes
   1. Climatic System
      (a) the energy budget, energy flow, spatial variation
      (b) atmospheric moisture, processes, flows within the system
      (c) atmospheric circulation, air masses, major wind systems
      (d') the interplay of (a), (b) and (c) which result in climatic variation
   2. Landform System
      (a) plate tectonics and the distribution of major landform features
      (b) the drainage basin system and its variation in different environments (tropical humid, tropical arid, polar)
         i. the hydrological cycle in the context of landform development
         ii. the weathering sub-system
         iii. the slope sub-system
         iv. the channel sub-system
3. Biotic System
   (a) ecosystem
   (b) major factors and processes influencing the nature of soil
       (podzolization, laterization, calcification, salinization, gleying)
   (c) factors influencing the development of vegetation
   (d) plant-environment relationships at a global scale (biomes) and at
       a local scale

4. An understanding of man-environment relationships within the
   following environments:
   tropical rain forest
   tropical desert

II. Agricultural Landscapes
1. farming as (a) an ecological system, (b) an economic system:
   i. physical, social and economic components, interactions, flows
   ii. effects on crops and/or livestock selection and production

2. spatial patterns in agricultural landscapes: land-rent and distance
   decay concepts, concepts of agricultural location (von Thunen, Sinclair)

3. impact of urbanization and industrialization on farming

4. farming hazards (floods, droughts): nature, magnitude and
   frequency, effects and solutions

III. Urban and Industrial Landscapes
1. location, spacing, size and functions of urban settlements (Christaller,
   Zipf)

2. spatial patterns in urban landscapes
   (a) land-rent and distance-decay concepts, concepts of urban
       structure (Burgess, Hoyt, Harris and Ullman)
   (b) urban population densities

3. concepts of manufacturing location (Weber, Smith): role of raw
   materials, energy, labour, transport, market, technology, behavioural
   and institutional factors; agglomeration and decentralization

4. urban problems: housing, transport

5. the impact of urbanization and industrialization on the quality of the
   environment