

Syllabus 9696/02 Advanced Physical Geography Options

Two options must be selected from the **four** units given below. The teaching order is flexible and a matter of personal choice, but it is recommended that teaching of these options is done on completion of the core which is examined in Paper 1.

Recommended Prior Knowledge

AS Level Geography is considered to be the core from which advancement to the full A Level is achieved. The syllabus has been developed to provide continuity with the previous AL (9050/57/59) syllabuses in the subject.

General Resources

Web site addresses will be given as appropriate throughout the scheme of work

Useful texts are Nagle, G (2000) *Advanced Geography* Oxford University Press. Waugh, D (2000) *Geography: An integrated Approach* Nelson 3rd ed; Guinness, P and Nagle, G (2002) *Advanced Geography: Concepts and Cases* Hodder and Stoughton Revised ed.

More specialist texts will be referenced as appropriate

UNITS

Each unit requires study of processes in Physical Geography and an appreciation of the links between process and landform. In addition each unit demands an appreciation of the physical-human interface and one or more case studies to illustrate such links.

1	<p>TROPICAL ENVIRONMENTS</p> <p>1.1 TROPICAL CLIMATES- location, description and explanation of the tropical and sub-tropical climates</p> <p>1.2 TROPICAL ECOSYSTEMS- the concept, structure and functioning of an ecosystem-its vegetation and soils with reference to tropical rain Forests and Savannas</p> <p>1.3 TROPICAL LANDFORMS- weathering processes and the evolution of both granite and karst landscapes in the tropics.</p> <p>1.4 SUSTAINABLE MANAGEMENT OF TROPICAL ENVIRONMENTS-This may not feature as a separate topic but may be included in 1.2. and 1.3 Alternatively sustainability/management of tropical ecosystems may be studied as a separate topic and appropriate case study material covered within this sub-unit. Suggestions will be included in the detailed scheme of work</p>
2	<p>COASTAL ENVIRONMENTS</p> <p>2.1 WAVE AND MARINE PROCESSES-the emphasis here is upon the processes and includes theoretical background to the unit. E.g. Sediment cells as a useful unit for study</p> <p>2.2 COASTAL LANDFORMS OF CLIFFED AND CONSTRUCTIVE COASTS-this section focuses on the landforms which result from the processes. Clear links should be made between process and form. Focus on both erosional and depositional landforms, including long shore processes.</p> <p>2.3 CORAL REEFS. Location, functioning, conditions for growth, types of reef, theories of formation and threats to survival.</p> <p>2.4 SUSTAINABLE MANAGEMENT OF COASTS. This may be included within discussion of coral reefs and/or cliffed/constructional sections of coastline. The choice of such exemplification and organisation will be left to the discretion of the centre. The choice is left to the individual centre.</p>

3	<p>HAZARDOUS ENVIRONMENTS</p> <p>3.1 HAZARDOUS ENVIRONMENTS RESULTING FROM TECTONIC ACTIVITY-Location of plates/boundaries and associated volcanic earthquake activity. Prediction, monitoring and impact on human activity should be included. Case study material may be an integral part</p> <p>3.2 HAZARDOUS ENVIRONMENTS RESULTING FROM MASS MOVEMENTS- mechanism and processes of mass movement. Prediction, monitoring and perception of risk. Human Impact.</p> <p>3.3 HAZARD RESULTING FROM ATMOSPHERIC DISTURBANCES-Location and types of tropical storm, conditions and processes, related hazards. Prediction, monitoring and perception of risk. Human impact.</p> <p>3.4 SUSTAINABLE MANAGEMENT IN HAZARDOUS ENVIRONMENTS- A multiple hazard zone like California or Iceland could be ideal as a case study. Of course any relevant environment/s can be selected. It may be guided by your own location in relation to hazards! Case studies will have been referred to during the course of each sub-unit as the physical human interface within these hazardous environments is considered.</p>
4	<p>ARID AND SENI-ARID ENVIRONMENTS</p> <p>4.1 The distribution and climatic characteristics of Hot arid and semi-arid environments. Location of deserts, relation to latitude, ocean currents, continental interiors, causes of aridity, characteristics of the climates and past climatic change</p> <p>4.2 PROCESSES PRODUCING DESERT LANDFORMS –relationship between processes of erosion, transportation and deposition in producing the landforms of arid regions</p> <p>4.3 SOILS AND VEGETATION-concept of the ecosystem, functions like nutrient cycling. Characteristics of vegetation -biodiversity and fragility, water availability and associated soils and their inter-relationships with the vegetation</p> <p>4.4 SUSTAINABLE MANAGEMENT OF ARID AND SEMI-ARID ENVIRONMENTS- A case study may be considered as a separate unit here or may develop naturally out of 4.3.</p>

Book List for A Level Geography

These texts are referenced in the Scheme of Work

General Texts

These two books are excellent especially on the interface between the physical and human environments.

Digby, B (2000) *Changing Environments* Heinemann

(2001) *Global Challenges* Heinemann

Cook, Hordern, McGahan, Ritson *Geography in Focus*, Causeway Press ISBN 1-873929-91-9 *an excellent reference book for several sections of the SoW.*

Gillett, M and J, (2003) *Physical Environment: A Case Study approach*. Hodder and Stoughton. *Contains useful case study material and is well illustrated.*

Guinness, P and Nagle, G (1999) *Advanced Geography: Concepts and Cases* Hodder and Stoughton

Guinness, P and Nagle, G (2000) *AS Geography: Concepts and Cases* Hodder and Stoughton

Hill, M (1999) *Advanced Geography: Case Studies* Hodder and Stoughton *case study based.*

Nagle, G (2000) *Advanced Geography* Oxford University Press *Guinness and Nagle and Nagle's books are first class have wide coverage and useful illustrative material.*

Waugh, D (2000) *Geography: An Integrated Approach* Nelson *the definitive AL text because it covers everything!*

The AS Texts recommended in the SoW are very useful and entirely appropriate for use at AL.

Atmospheric Processes/Weather and Climate

Money, D.C. (2000) *Weather and Climate* Nelson

O'Hare G and Sweeney, J (1990) *The Atmosphere System* Oliver and Boyd

Warburton, P (2001) *Atmospheric Processes and Human Influences* Collins Educational Landmark Geography Series –*both first class AL texts with wide coverage and useful illustrative material and case studies*

Video: *Wild Weather* BBC Available from www.bbc.shop.com

Ecosystems

O'Hare, G (1990) *Soils Vegetation and Ecosystems* Oliver and Boyd-*an excellent quite advanced text*

Tivy, J and O'Hare, G (1982) *Human Impact on the Ecosystem* Oliver and Boyd *not essential*

Woodfield, J (2000) *Ecosystems and Human Activity* Collins Educational Landmark Geography Series-*all the books in this series are funds of useful material*

Coral reefs

Attenborough, D (2001) *The Blue Planet: A Natural History of the Oceans* BBC Publications-*general interest text, beautifully illustrated.*

Video *The Blue Planet* available from the BBC www.bbc.shop.com

Flintoff, I and Cohen, S (1998) *Managing Wilderness Regions* Heinemann-*useful for coral reefs only*

Warn, S (2001) *Coral Reefs: Ecosystems in Crisis* Field Studies Council-*really detailed especially on a case study of St Lucia's coral reefs theory and management of them*

Tropical Environments

Heelas, R (2001) *Tropical Environments: Contrasting Regimes and Challenges* Nelson Thornes-ideal because it is geared specifically to the option

Hazardous Environments

Bishop, V (2001) *Hazards and Responses* Collins Educational Landmark Geography Series

Ross, S (2002) *Natural Hazards* Nelson Thornes

Skinner, M (2003) *Hazards* Hodder and Stoughton Access To Geography Series

All three of these texts are excellent. The most comprehensive is Bishop.

Landforms

Bishop, V and Prosser, R (2001) *Landform Systems* Collins Educational Landmark Geography Series

Clowes, A and Comfort, P (1994) *Process and Landform* Oliver and Boyd

Goudie, A (1990) *The Nature of the Environment* Basil Blackwell 2nd ed.

Small, R J (1975) *The Study of Landforms* Cambridge University Press

The first three texts are geared to AL and all very good and comprehensive. Small is geared to University Level but is especially useful for Tropical and Arid environments

Additional Resources

There are several subscription resources which now produce specialised material online. The material can then be downloaded.

Geofile Online produced by Nelson Thornes. <http://www.geo-file.com/> Charges do apply.

Geofactsheets are published by <http://www.curriculumpress.co.uk/>

These are another excellent online source of case study material for AL

GeoActive is geared to IGSCCE but is also a useful online resource Also from Nelson Thornes. <http://www.geo-active.com/>

Geo News – geared to IGSCCE rather than AL but is useful material.

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