## PLC: Coastal systems and landscapes

Unit criteria	Review 1			Review 2			Review 3		
	$\odot$	(2)	8	$\odot$	(2)	8	$\odot$	<b>(2)</b>	8
Systems in physical geography: systems concepts and their					Ť				
application to the development of coastal landscapes – inputs,									
outputs, energy, stores/components, flows/transfers,									
positive/negative feedback, dynamic equilibrium.									
The concepts of landform and landscape and how related									
landforms combine to form characteristic landscapes.									
Sources of energy in coastal environments: winds, waves									
(constructive and destructive), currents and tides.									
Low energy and high energy coasts.									
Sediment sources, cells and budgets.									
Geomorphological processes: weathering, mass movement,									
erosion, transportation and deposition.									
Distinctively coastal processes: marine: erosion – hydraulic									
action, wave quarrying, corrasion/abrasion, cavitation, solution,									
attrition; transportation: traction, suspension (longshore/littoral									
drift) and deposition; sub-aerial weathering, mass movement									
and runoff.									
Origin and development of landforms and landscapes of									
coastal erosion: cliffs and wave cut platforms, cliff profile									
features including caves, arches and stacks; factors and									
processes in their development.									
Origin and development of landforms and landscapes of									
coastal deposition. Beaches, simple and compound spits,									
tombolos, offshore bars, barrier beaches and islands and sand									
dunes; factors and processes in their development.  Estuarine mudflat/saltmarsh environments and associated									
landscapes; factors and processes in their development.  Eustatic, isostatic and tectonic sea level change: major									
changes in sea level in the last 10 000 years.									
Coastlines of emergence and submergence. Origin and									
development of associated landforms: raised beaches, marine									
platforms; rias, fjords, Dalmatian coasts.									
Recent and predicted climatic change and potential impact on									
coasts.									
The relationship between process, time, landforms and									
landscapes in coastal settings.									
Traditional approaches to coastal flood and erosion risk: hard									
and soft engineering.									
Sustainable approaches to coastal flood risk and coastal									
erosion management: shoreline management/integrated									
coastal zone management.									
Case study(ies) of coastal environment(s) at a local scale to									
illustrate and analyse fundamental coastal processes, their									
landscape outcomes as set out above and engage with field									
data and challenges represented in their sustainable									
management.									
Case study of a contrasting coastal landscape beyond the	1								
United Kingdom (UK) to illustrate and analyse how it present									
risks and opportunities for human occupation and development,									
and evaluate human responses of resilience, mitigation and									
adaptation.									