

Example D:

Individual shoreline management plan

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Module Outline

Module: GE4207 — COASTAL MANAGEMENT (MC 5)
Faculty: Arts and Social Sciences

Number of Students: 40 - 70

Module Description

The aim of this module is to produce a sound understanding of tropical coastal ecosystems, human populations, their interactions, and their sustainable management. In this module you will gain a thorough understanding of tropical coastal ecosystems and the threats they face, and evaluate the key concepts and strategies in coastal vulnerability assessment and management. Several themes run through this module, particularly relating to:

- 1) biophysical-ecological-socioeconomic linkages in the coastal zone
- 2) tradeoffs inherent in managing a diverse set of processes and stakeholders in the coastal zone; and
- 3) the impact of hazards and global climate change on coastal processes and human vulnerability.

Examples are taken predominantly from Singapore and Southeast Asia. This is an interdisciplinary module, so will be of interest to both physical and human geographers.

Objectives

1. Gain a thorough understanding of the major tropical coastal ecosystems, the pressures they face, and how they may be conserved, especially in SE Asia
2. Evaluate the key concepts and strategies in coastal vulnerability assessment and coastal management
3. Investigate the impacts of temporal and spatial scales on coastal management
4. Critically evaluate current thinking in tropical coastal management

Assessment task(s)

Grading

Coastal hazard group poster presentation	20%
Coastal hazard individual essay	20%
* Individual shoreline management plan	20%
Exam	40%

Late policy

10% of final mark deducted for the first 3 days.

5% of final mark deducted every day in day 4 and 5.

Not accepted after 5 days.

**Following provides a copy of the assessment task on "Individual shoreline management plan"*

Shoreline Management Plan for the northeast Singapore coastline

GE4207 Coastal Management

Objective of this assignment

For this assignment, you will **individually** create a Shoreline Management Plan (SMP) for a stretch of coastline in northeast Singapore. You will divide the coastline into appropriate coastal process cell(s), and decide on the best management strategy for the **next 50 years** using the four main SMP strategies we introduced in the *Temperate Coastal Management* class:

1. Advance the line (build new bigger and stronger defences)
2. Hold the line (keep as today)
3. No active intervention
4. Managed realignment

You will write your SMP under the headings (numbered 1-6) on the next page. I am not looking for a long document – policy makers don't have time to read long essays, and you will be graded on if your SMP is concise, critical, evaluative and innovative – e.g. can you identify areas that could undergo managed realignment, depending on current land use and predictions of sea level rise and erosion? I am also looking to see how you have linked your SMP to the principles and concepts we have introduced in the module. **MAKE CLEAR LINKS** with material we covered in Week 10, and other weeks if appropriate.

Other useful resources

You should use the following resources to supplement the maps shown:

- Google Earth
- <http://www.onemap.sg/index.html> and <http://www.ura.gov.sg/uramaps/>
- <https://www.gov.uk/government/publications/shoreline-management-plans-smpls>

Length: 1 paragraph for each heading (see below), plus diagrams where appropriate. This report should be brief. However, I will not set an explicit word or page limit for this exercise as I do not wish to constrain you.

Deadline: Submit a hard copy to my post box by **2pm, 6th November**. See IVLE for penalties for late submission.

Continuous Assessment (CA): 20%

Consultations: My office hours for this module are Friday afternoons or any time over email.

What skills will you be using? This CA tests your ability to synthesise multiple datasets, synthesise multiple themes from the module, interpret spatial information, make real-world decisions and understand tradeoffs.

Note: A "Shoreline Management Plan" template is provided to students. You may refer to this link to view a copy of the template <https://goo.gl/KcTJr7>

Rationale of Assessment Choice

The key objectives that I hope to achieve when students participate in the assessment task(s) are:

- To learn how to synthesise across different classes in a novel manner. This CA happens in week 10, towards the end of the module.
- To use students' knowledge of Singapore and tropical coastal management to apply a tool that is primarily designed for temperate countries.
- To give students experience of 'real world' management. This is a management module, so this is their opportunity to put the concepts they have learnt in class into practice.

For this assignment, students are given a variety of data sources, some of which are incomplete, to interpret in any way they wish. This reflects the situation they may find in their future employment. The short report they write is exactly the same structure as the real world report upon which this CA is based. This also reflects a way of writing they may need to employ in the future.

The CA is open ended; there is no right or wrong answer, and numerous management decisions can be made. The only right answer is an answer where the decisions taken are strongly justified by the student. This makes the CA very challenging and time consuming to grade, but its open ended nature reflects the open ended nature of management and decision-making in the real world.

The reason for design open-ended question is that it doesn't constrain students down a narrow track where the answer can be guessed. Students have to work hard and in an innovative manner in order to justify their plan, using several components of the Bloom's Taxonomy, for example. I like that the CA acts as a synthesis, or capstone to the entire module. It gives students a sense of completeness, while requiring them to think across multiple topics.

Feedback from students highlights how they view this as a novel CA that they have not experienced before in other modules. Students also appreciate the real world application of this CA - I have had several graduated students email me to say this CA has trained them for their current employment.