



THE LADY ELIZABETH SCHOOL

Marine Science @ Lady Elizabeth



Exploring our Blue Planet



www.laudeladyelizabeth.com

Part of the International Schools Partnership Group



THE LADY ELIZABETH SCHOOL

IGCE MARINE SCIENCE (INTERNATIONAL ADVANCED LEVEL)

WHAT DO I NEED TO KNOW, OR BE ABLE TO DO, BEFORE
TAKING THIS COURSE?

The Cambridge Marine Science A Level course does not require any prior learning, however students who have studied Biology, Chemistry and Geography at GCSE level will have an advantage. Students who are studying Biology and Chemistry at GCE A level will find their knowledge from these subjects will support their study of Marine Science.

WHAT WILL I LEARN?

Cambridge International AS and A Level Marine Science provides a coherent and stimulating introduction to the science of the marine environment. The AS part of the course concentrates on the scientific study of the sea and its ecosystems, while the A Level part concentrates on human activities that depend on the sea and have an impact on it.

The emphasis throughout is on the understanding of concepts and the application of ideas to new contexts as well as on the acquisition of knowledge, and the course encourages creative thinking and problem-solving skills which are transferable to any future career path. It is expected that practical activities will underpin the teaching of the whole course, and learners may be asked about practical activities in examination questions, but there is no practical paper and no coursework.

Our location in the Valencian Community, close to the coastline gives us an opportunity to conduct practical work in our local marine environment. There are also opportunities to visit the local Aquariums, Ports and Nature reserves to observe first hand many of the concepts that are studied during the course, in order to minimise disruption to other A level courses most of these trips are organised at weekends.

The course is split into AS and A2, at AS the first 7 topics are covered and then for A2 topics 8 through to 15 are covered.

AS

- Topic 1 Scientific Method
- Topic 2 Marine Ecosystems and Biodiversity
- Topic 3 Energetics of Marine Ecosystems
- Topic 4 Nutrient Cycles in Marine Ecosystems
- Topic 5 Coral Reefs and Lagoons
- Topic 6 The Ocean Floor and Coast
- Topic 7 Physical and Chemical Oceanography

A2

- Topic 8 Physiology of Marine Primary Producers
- Topic 9 Aspects of Marine Animal Physiology
- Topic 10 Marine Animal Reproductive Behaviour
- Topic 11 Fisheries Management
- Topic 12 Aquaculture



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Topic 13 Human impact on Marine Ecosystems
Topic 14 Marine Conservation and Ecotourism
Topic 15 Marine Biotechnology

HOW WILL I BE ASSESSED?

Assessment of the Marine Science A level is through 4 written exam papers. Papers 1 and 2 for AS level, Papers 3 and 4 for A2 level. These 4 exam papers are usually sat during a week at the very start of the summer examination period.

Paper 1 and Paper 3 consist of Structured Questions, each Topic studied is represented with one question. Structured questions mean the student is guided through the question making a number of short answers for each question. The duration of both papers is 1 hour 30 minutes and each contains a total of 75 marks.

Papers 2 and Paper 4 consist of data analysis questions (20 marks) and two longer answer questions (15 marks each). The duration of both papers is 1 hour 15 minutes and each contain a total of 50 marks.

The AS qualification is graded on the total number of marks from Papers 1 and 2, with a maximum of 125 marks. The A level qualification is graded on the total number of marks from Papers 1, 2, 3 and 4, with a maximum of 250 marks.

IS THIS THE RIGHT SUBJECT FOR ME?

AS and A level Marine Science is suitable if you:

Are interested in a career or University course related to the Environmental Sciences or Marine Biology.

Also if you are interested in taking an additional A level course in order to increase your number of UCAS points.

If you want to take a Science based A level but have struggled with the Sciences at GCSE level.

WHAT CAN I DO AFTER I'VE COMPLETED THE COURSE?

Cambridge International AS and A Level Marine Science can form part of an ideal subject combination for learners who want to study Marine Biology or Environmental Science at university or to follow a career in shipping, fisheries, tourism or aquaculture.

It is also a good opportunity as an additional A level to gain more UCAS points as the workload is less than what is expected for other Science related A level courses.

To find out more talk to your Marine Science teacher (Mr Hollingworth) and visit your careers office or www.iob.org for further information on careers and courses in Biology. For the full specification check www.cie.org.uk

For further information see: Mr Hollingworth