

Summary

HL Statistics (Continuous Random Variables)

Subject	Year	Start date	Duration
Mathematics: analysis and approaches	IB2	Week 1, September	1 week

Course Part

Description

In this unit, students will learn about Continuous random variables and their probability density functions.

Inquiry & Purpose

Inquiry / Higher Order Questions

Type	Inquiry Questions
Skills-based	Investigate Poisson distributions
Skills-based	Investigate the effect of linear transformations of X on the expected value and variance.

Curriculum

Aims

Employ and refine their powers of abstraction and generalization

Objectives

Knowledge and understanding: Recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.

Syllabus Content

AHL Content

AHL 4.14

Variance of a discrete random variable.

Continuous random variables and their probability density functions.

Mode and median of continuous random variables.

Mean, variance and standard deviation of both discrete and continuous random variables.

IB DP Mathematics Analysis HL (IB2)

The effect of linear transformations of X .

 **ATL Skills**

 **Approaches to Learning**

 **Thinking**

- In this unit, we will

ask students to formulate a reasoned argument to support their opinion or conclusion

give students time to think through their answers before asking them for a response

reward a new personal understanding, solution or approach to an issue

ask open questions

set students a task which required higher-order thinking skills (such as analysis or evaluation)

build on a specific prior task

help students to make their thinking more visible (for example, by using a strategy such as a thinking routine)

require students to take an unfamiliar viewpoint into account when formulating arguments


ask questions that required the use of knowledge from a different subject from the one you are teaching


include a reflection activity


make a link to TOK


 **Developing IB Learners**

 **Learner Profile**

 Inquirers

 Knowledgeable

 Thinkers

 Reflective