

Course Objectives

This course is aimed at secondary school students who are curious about how people think, how we make up our minds and how we come to conclusions and form opinions. The course will facilitate discussions about basic thinking skills and show how they can be applied in daily life. More generally, the course serves to show the students the importance of critical analysis and careful thinking in university education and lifelong learning, giving them also a taste of university life.

Course Structure

The course consists of four modules: meaning analysis, argument analysis, scientific reasoning, and fallacies and biases.

Meaning Analysis

This module is to help students distinguish the literal meaning of a statement from its conversational implicature and identify the linguistic pitfalls in our expressions, such as obscurity, distortion and empty content.

(Suggested reading only: *Critical Thinking: An Introduction* By Alec Fisher)

Argument Analysis

In this module students will learn how to identify, construct and evaluate arguments for the purpose of supporting or criticizing a position. The tutorial focuses on identifying arguments, understanding deductive and inductive reasoning, and constructing sound arguments.

(Suggested reading only: *Reason and Argument*, 2nd Edition, By Richard Feldman)

Scientific Reasoning

This module aims to introduce the Hypothetico-deductive method that is central to scientific researches. Discussion will focus on how issues such as the adequacy of observations, testability of hypotheses as well as soundness of inferences are related to explaining a phenomenon. In-class exercises will be conducted with group discussions and case study of real life examples.

(Suggested reading only: *How to Think about Weird Things: Critical Thinking for a New Age* By Theodore Schick, Jr., Lewis Vaughn)

Fallacies and Biases

This module will encourage students to apply what they have learned in the previous classes in discerning and illustrating logical fallacies and cognitive biases that we come across from time to time in daily conversations and thinking. Classification of common fallacies and biases will be introduced.

(Suggested reading only: *An Introduction to Critical Thinking and Creativity: Think More, Think Better* By Joe Lau)