



UNIVERSITI TEKNOLOGI MARA

ALS461: CRITICAL THINKING

Course Name (English)	CRITICAL THINKING APPROVED
Course Code	ALS461
MQF Credit	3
Course Description	The course focuses on developing the ability of the students to think critically, logically, and analytically in a wide range of problem-solving situations. They will be exposed to different criteria for evaluating information, establishing facts, making assumptions, and inferences, forming opinions, as well as developing, analysing, and evaluating arguments based on the principles of critical thinking. Students will develop their critical thinking skills through reading, speaking, and writing. They will also be able to discuss enduring and current issues and case studies. They will also participate actively in small group discussions which provide opportunities for reflective thinking and independent opinions.
Transferable Skills	-Demonstrate the ability to communicate clearly and confidently, and listen critically (Effective Communicator). -Demonstrate the ability to apply creative, imaginative, and innovative thinking and ideas to problem solving (Independent and Critical Thinker). - Demonstrate the ability to analyse issues/problems from multiple angles and make suggestions (Solution Provider).
Teaching Methodologies	Lectures, Blended Learning, Inquiry-based Learning, Case Study, Tutorial, Web Based Learning, Problem Based Learning (PBL), Presentation, Debates, Self-directed Learning, Computer Aided Learning, Journal/Article Critique, Role Play, Collaborative Learning
CLO	CLO1 Distinguish critical thinking principles in given contexts. CLO2 Justify premises and conclusions drawn in arguments. CLO3 Explain in written form, the ability to manage information on arguments based on the concepts of critical thinking.
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction to Critical Thinking 1.1) What is critical thinking? 1.2) Critical Thinking standards 1.3) The benefits of critical thinking 1.4) Barriers to critical thinking 1.5) Characteristics of a critical thinker	
2. Arguments 2.1) What is an argument? 2.2) Identifying premises and conclusions 2.3) What is not an argument 2.4) Toulmin Model of Argument 2.5) Rogerian Model of Argument	
3. Basic Logical Concepts 3.1) Definitions and characteristics of deductive and inductive argument 3.2) Common patterns of deductive reasoning 3.3) Common patterns of inductive reasoning 3.4) Deductive validity 3.5) Inductive strength	
4. Logical Fallacies 4.1) Fallacies of relevance 4.2) Fallacies of insufficient evidence	

5. Language

- 5.1) Precision in the definition and choice of words
- 5.2) Ambiguity
- 5.3) Emotive language for slanting the truth
- 5.4) Euphemisms and political correctness

6. Thinking Critically about Science and Pseudoscience

- 6.1) The basic patterns of scientific reasoning
- 6.2) The limitations of science
- 6.3) How to distinguish science from pseudoscience
- 6.4) Case studies in pseudoscience and the paranormal

7. Evaluating Arguments

- 7.1) Good Arguments
- 7.2) Bad Arguments

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	An individual written assignment that develops students' critical thinking ability to analyse premises and conclusions in arguments in 'problem-solving context' to support the attribute of MQF 6 LOD.	25%	CLO2
	Individual Project	An individual project that develops students' ability to apply the knowledge of critical thinking principles in analysing data from an interview with three people of different backgrounds to support the attribute of MQF 1 LOD Knowledge	35%	CLO1
	Online Quiz	A written test that is aimed to gauge students' ability to manage arguments using the principles of critical thinking to support the attribute of MQF 7 LOD.	20%	CLO3
	Test	A written test that is aimed to gauge students' ability to manage arguments using the principles of critical thinking to support the attribute of MQF 7 LOD.	20%	CLO3

Reading List	Recommended Text	<ul style="list-style-type: none"> • Bassham, G. et al 2018, <i>Critical Thinking: A Student's Introduction</i>, 6th Ed., 15, McGraw-Hill Boston
	Reference Book Resources	<ul style="list-style-type: none"> • Bradley, S., Price, N. & St John, D. 2017, <i>Critical Thinking: Proven Strategies to Improve Decision Making Skills</i>, Open Spirit Publishing, LLC • Chatfield, T. 2017, <i>Critical Thinking: Your Guide to Effective Argument, Successful Analysis and Independent Study</i>, Sage Publications Ltd. London • Cottrell, S. 2016, <i>Critical Thinking Skills: Developing Effective Analysis and Argument</i>, Palgrave Macmillan Basingstoke • Levitin, D. 2016, <i>A Field Guide to Lies: Critical Thinking in the Information Age</i>, Penguin Montreal • Schuster, S. 2018, <i>The Art of Thinking in Systems: Improve Your Logic, Think More Critically, and Use Proven Systems to Solve Your Problems-Strategic Planning for Everyday Life</i>, Steven Schuster
Article/Paper List	This Course does not have any article/paper resources	
Other References	<ul style="list-style-type: none"> • Website <i>The Online Teacher Resource</i> http://www.teach-nology.com/worksheets/critical_thinking • Website Fleming, G. <i>Critical Thinking Exercises</i> http://homeworktips.about.com 	