Level	1
Credits	3
Medium of Instruction	English and Chinese (Cantonese)
Teaching Pattern	28 hours of lectures
	14 hours of tutorials
Prerequisites	Nil
Assessment	60% coursework
	40% examination

Aims

This subject equips students with critical and creative thinking skills. It provides the conceptual framework to identify problems in both everyday life and specific domains, and to make the right and appropriate decisions. By widening their horizons and stimulating their multi-dimensional thinking style, it cultivates a proper attitude for enhancing students' critical and creative power. The subject also helps students develop critical thinking and creative thinking essential for their life-long learning and future work development.

The Subject Team is required to refer to the relevant Programme Curriculum Map(s) for the role of this subject in helping students achieve Programme-level Intended Learning Outcomes when preparing for the delivery and assessment of the subject.

Learning Outcomes

On successfully completing this subject, students will be able to:
- Understand the importance of thinking skills in their everyday life.
- Appreciate their existing thinking habits, mental blocks and attitudes that hinder them from being creative and/or critical.
- Be aware of the different types of thinking, how they are different, how they can complement each other and how they can be applied to everyday situations.
- Become more attuned to fallacious reasoning in everyday life and know how to correct the fallacies found.
- Apply the techniques for critical thinking in evaluating solutions and arguments.
- Develop the attitude towards and techniques for creative problem solving.
- Apply the basic skills for working in innovative problem solving teams.

Indicative Contents

- **Thinking as a Skill**
  Concept of Thinking; Importance of thinking; Habitual thinking vs. thinking as a deliberate skill that can be controlled; Vertical (critical) vs. lateral (creative) thinking; Attitude and psychological preparations for thinking.

- **Critical Thinking: Introduction**
  Critical thinking; Role of critical thinking and how it can complement creative thinking in problem solving; Logic and critical thinking.

- **Meaning Analysis**

The nature of meaning; Meaning and reference; Basic functions of language; Language traps.

- **Argument Analysis**
  Identifying arguments; Validity and Soundness; Inductive strength and cogency; Methods of enumeration; Analogical arguments; Arguments from consequences; Causal arguments.

- **Fallacy Analysis**
  Common errors in thinking including inconsistency, irrelevance, insufficiency, and inappropriate assumptions.

- **Creative Thinking: Introduction**
  Creativity as an ability to modify self-imposed constraints; Characteristics of creative people; Basic elements affecting creativity in practice: person, process, product and climate; Introduction to stages in the creative process.

- **Generating Ideas**
  Avoiding blocks to creativity; Stimulating ideas using various techniques and tools: forced uncommon responses, free association, analogy, unusual combinations, visualisation, brain storming, and Edward de Bono's various techniques such as the six thinking hats, etc.

- **Creative and Critical Thinking in Teams**
  Characteristics of effective teams; Stimulating creativity and problem solving in teams; Communication, trust building and conflict-reduction for teams.

Teaching/Learning Approach

The emphasis of the subject is on enabling students to acquire the attitudes and skills in practical thinking. Lectures will be used to explain and demonstrate the topics and techniques introduced. Cases and exercises will be used during tutorials to let students experience thinking in action. To motivate students to actively change their own attitudes and participate in experiential workshop-style tutorials, a lot of interesting and daily examples and cases will be used as illustration/demonstration during lectures, for exercises during tutorials and for assignments.

To achieve the best learning outcomes, the lecturer/instructor will create a climate that is challenging, dynamic and yet idea-supporting, trusting, and playful. Debates and risk taking will be encouraged, which facilitates students to make their own judgments in a rational and fluent way.

Tentative Teaching Schedule

Lecture			Tutorial		
No	**Content**		**No**	**Content**	**Remarks**
1	Lecture 1: Introduction		1	Nil	
2	Lecture 2: Creative Thinking (I): Basic Concepts		2	Tutorial #1: Introduction	
3	Lecture 3: Creative Thinking (II): Creative Problem Solving and Six		3	Tutorial #2: Creative Thinking	Release of Assignment 1

Lecture			Tutorial		
No	Content		No	Content	Remarks
	Thinking Hats				
4	Lecture 4: Linguistic-conceptual Analysis　(I)		4	Tutorial #3: Argument Analysis and Standard Form Writing	
5	Lecture 4: Linguistic-conceptual Analysis　(II)		5	Tutorial #4: Linguistic-conceptual Analysis (I)	
6	Lecture 5: Deductive Reasoning (I): Validity and Soundness of Deductive Arguments		6	Tutorial #5: Linguistic-conceptual Analysis (II)	
7	Individual Assignment and Mid-term Revisions:		7	Tutorial #6: Deductive Reasoning: Validity and Soundness of Deductive Arguments	Progress Report of Assignment 1
8	Lecture 6: Deductive Reasoning (II): Recognizing Arguments and the Difference between Deductive Arguments and Inductive Arguments		8	Tutorial #7: Recognizing Arguments and the Difference between Deductive Arguments and Inductive Arguments	
9	Lecture 7: Deductive Reasoning (III): Categorical Logic		9	Tutorial #8: Categorical Logic	
10	Lecture 8: Inductive Reasoning: Inductive Generalization and Analogical Argument (I)		10	Presentation of Group Projects #1	
11	Lecture 9: Inductive Reasoning: Inductive Generalization and Analogical Argument (II)		11	Presentation of Group Projects #2	
12	Lecture 10: Fallacies (I)		12	Presentation of Group Projects #3	
13	Lecture 11: Fallacies (II)		13	Tutorial #9: Inductive Reasoning	Submission of Assignment 1
14	Revisions		14	Tutorial #10: Fallacies	

Assessment Approach

A variety of assessment tools will be used, including presentations, case studies, written reports, tests and an examination designed to develop and assess students' creative and critical thinking as well as communication skills.

The actual weighting of individual coursework assessment components will be specified in the Teaching Plan for each class.   The subject intended learning outcome(s) assessed in each coursework component will be communicated to students when the coursework assignment is given out.

Assessment Weighting

Coursework:	60 %
Examination:	40 %
	100%

Assessment Methods for Coursework

Mid-Term Test	40 %	
Assignment 1	30 %	(Group)
Assignment 2	20 %	(Individual)
Participation*	10 %	
	100%	

*Student participation will be assessed according to the following guidelines:

- *Complete silence at all times and do not talk even when repeatedly asked by peers or teachers → 0%*

- *No initiative to talk but will talk when asked by peers or teacher → 2.5%*

- *Has an initiative to talk with peers, and to respond to teacher's questions → 5%*

- *Has an initiative to talk with peers, to respond to teacher's questions, and to lead peers to talk → 7.5%*

- *Has an ability to lead peers to talk, and is highly responsive to teacher's questions → 10%*

Study Effort Required

Besides the 42 class contact hours for lectures and tutorials, students are expected to spend approximately 84 additional hours on their own or with fellow students for activities such as doing assignments, group work, and self-study in preparation for lectures, tutorials, test(s) and examination(s).

Indicative Readings

Lecture/Tutorial Notes and Assignments

Students are required to download lecture/tutorial notes and assignments from Moodle.

References

1. 李天命：《語理分析的思考方法》，香港：青文書屋。
2. 李天命：《哲道行者》，香港：明報出版社。
3. 李逆熵：《格物致知 ― 思考與研究方法概要》，經濟日報出版社。
4. 方子華等：《批判思考》，Singapore: McGraw Hill (Asia), 2005。
5. De Bono, Edward, *Lateral Thinking : Creativity Step by Step*, London: HarperCollins, 1973.
6. De Bono, Edward, *Six Thinking Hats*, revised and updated version, London: Back Bay Books, 2000.
7. Buzan, Tony, *How to Mind Map*, London: HarperCollins, 2002.
8. Joseph So, Ludwig Ying ed., *Creative and Critical Thinking*, Hong Kong: Pearson, 2006.
9. 貝剛毅：《思方導航──批判思考導論》〈香港：匯智出版, 2011〉.
10. Joe Lau, *An Introduction to Critical Thinking and Creativity: Think More, Think Better* (Wiley, 2011).
11. 思方網（香港大學）：http://philosophy.hku.hk/think/chi/
12. Critical Thinking Web：http://philosophy.hku.hk/think/
13. Patrick J. Hurley, *A Concise Introduction to Logic* , Wadsworth Publishing; 11edition, 2006.

Feedbacks from Local Academics and Fulbrighters

The textbooks by Joe Lau and Patrick Hurley are good choices for a course like this. I'd be inclined to make them the centre of the course, supplemented by de Bono, rather than the other way around. In any case, this is a good course."

This is a well-conceived GE course. It is clear, concise and well detailed. The language and specificity of this proposal would provide useful guidance to proposal J03.

Recommended changes:

Learning outcomes should be more clearly assessable. Descriptors like "appreciate" and "be aware" for student outcomes are difficult, if not impossible, to assess directly. It would be easy enough to replace these words with such descriptors as "demonstrate appreciation of (or awareness of)"which are more easily assessable.