

**21. Critical Thinking (PE008IU)**

Course designation	<p><i>This course provides the nature and techniques of thought as a basis for our claims, beliefs, and attitudes about the world. The course also explores the process in which people develop their claims and support their beliefs.</i></p> <p><i>Specifically, the course includes the theory and practice of presenting arguments in oral and written forms, making deductive and inductive arguments, evaluating the validity or strength of arguments, detecting fallacies in arguments, and refuting fallacious arguments.</i></p> <p><i>Resources for the reasoning process include hypothetical and real-life situations in various fields of natural sciences, social sciences, and humanities.</i></p>
Semester(s) in which the course is taught	1, 2, summer semester
Person responsible for the course	Trần Thanh Tú (Ph.D); Nguyễn Thị Thủy (Ph.D); Phạm Ngọc (Ph.D); Nguyễn Văn Tiếp (Ph.D); Vũ Tiến Thịnh (MA); Đỗ Thị Diệu Ngọc (MA)
Language	English
Relation to curriculum	Compulsory
Teaching methods	Lectures, discussions, homework assignments, students' presentations
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: 127.5 Contact hours (please specify whether lecture, exercise, laboratory session, etc.): lecture: 37.5 Private study including examination preparation, specified in hours: 90
Credit points/ECTS	3 credits/4.62 ECTS
Required and recommended prerequisites for joining the course	None



Course learning outcomes	Upon the successful completion of this course, students will be able to:	
	Competency level	Course learning outcome (CLO)
	Knowledge	<p>CLO1. Know the general concepts and standards of critical thinking; and comprehend the disadvantages of barriers to critical thinking in various contexts</p> <p>CLO2. Know the elements of an argument and two patterns of reasoning</p> <p>CLO3 Know the fallacies of relevance and insufficient evidence in arguments</p>
	Skill	<p>CLO4. Construct and evaluate deductive and inductive arguments in spoken and written forms</p> <p>CLO5. Test the validity of deductive arguments using Venn diagram and truth tables</p> <p>CLO6. Analyze and standardize arguments</p> <p>CLO7. Evaluate truth claims and refute arguments</p> <p>CLO8. Analyze weaknesses in inductive arguments to strengthen them</p>
	Attitude	CLO9. Defend personal/group beliefs with good arguments and in appropriate manners (project presentations)



<p>Content</p>	<p><i>The description of the contents should clearly indicate the weighting of the content and the level.</i></p> <p>Weight: lecture session (2 hours)</p> <p>Teaching levels: I (Introduce); T (Teach); U (Utilize)</p> <table border="1" data-bbox="507 465 1375 1527"> <thead> <tr> <th>Topic</th> <th>Weight</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>Introduction to Critical thinking</td> <td>3</td> <td>I, T, U</td> </tr> <tr> <td>Recognizing arguments</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Basic logical concepts</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>A little categorical logic</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>A little propositional logic</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Logical fallacies I</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Logical fallacies II</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Review for Midterm test</td> <td>3</td> <td>U</td> </tr> <tr> <td>Analyzing arguments</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Evaluating arguments and truth claims</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Inductive reasoning</td> <td>3</td> <td>T, U</td> </tr> <tr> <td>Project: Group presentation</td> <td>9</td> <td>U</td> </tr> <tr> <td>Review for Final Exam</td> <td>3</td> <td>U</td> </tr> </tbody> </table>	Topic	Weight	Level	Introduction to Critical thinking	3	I, T, U	Recognizing arguments	3	T, U	Basic logical concepts	3	T, U	A little categorical logic	3	T, U	A little propositional logic	3	T, U	Logical fallacies I	3	T, U	Logical fallacies II	3	T, U	Review for Midterm test	3	U	Analyzing arguments	3	T, U	Evaluating arguments and truth claims	3	T, U	Inductive reasoning	3	T, U	Project: Group presentation	9	U	Review for Final Exam	3	U
Topic	Weight	Level																																									
Introduction to Critical thinking	3	I, T, U																																									
Recognizing arguments	3	T, U																																									
Basic logical concepts	3	T, U																																									
A little categorical logic	3	T, U																																									
A little propositional logic	3	T, U																																									
Logical fallacies I	3	T, U																																									
Logical fallacies II	3	T, U																																									
Review for Midterm test	3	U																																									
Analyzing arguments	3	T, U																																									
Evaluating arguments and truth claims	3	T, U																																									
Inductive reasoning	3	T, U																																									
Project: Group presentation	9	U																																									
Review for Final Exam	3	U																																									
<p>Examination forms</p>	<p>40 multiple-choice questions for the midterm and final exams and group presentations for the final project</p>																																										
<p>Study and examination requirements</p>	<p>Attendance: A minimum attendance of 80 percent is compulsory for the class sessions. Students will be assessed on the basis of their class participation. Questions and comments are strongly encouraged.</p> <p>Overall passing score: 50/100</p>																																										



Reading list	<p>Textbooks:</p> <p>[1] Bassham, Irwin, Nardone, and Wallace, <i>Critical Thinking: A Student's Introduction</i>, 6th edition, McGraw-Hill Education, 2019</p> <p>[2] Moore, B.N. et al. (2009). <i>Critical Thinking</i>, 9th ed. McGraw-Hill</p> <p>References:</p> <p>[3] Patrick J. Hurley (2012). <i>A Concise Introduction to Logic</i> (11th ed.), Wadsworth, Cengage Learning</p> <p>+ Relevant web resources</p>
--------------	---