

NIRMA UNIVERSITY

Institute:	Institute of Technology
Name of Programme:	Integrated B.Tech.(CSE)-MBA
Course Code:	CSISP05
Course Title:	Critical Thinking
Course Type:	Supplementary
Year of Introduction:	2020-21

Credit Scheme

L	T	Practical Component				C
		LPW	PW	W	S	
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Course Learning Outcomes (CLO):

At the end of the course, students will be able to –

1. solve problems or take decisions by processing information in a clear, logical, reasoned and reflective manner.
2. recognize, build and appraise arguments effectively.
3. communicate orally and in writing using critical thinking.
4. recognize bias and its impact on decision making.

Syllabus:

Total Teaching hours: 10

Unit	Syllabus	Teaching hours
Unit-I	Brain and Thinking Introduction to Thinking, Types of Thinking, Brain and Thinking, Brain and Thinking, Anatomy of Brain: Parts of brain associated with thinking, thinking skills, critical thinking process.	03
Unit-II	Social, Psychological Aspects of Thinking Rationality Bounded Rationality and its model, Fast and Slow Thinking, Objectivity, Subjectivity, Assumptions and Skepticism. Perception, prejudice and stereotype, Heuristics, Cognitive Biases and Errors.	04
Unit-III	Deductive and Inductive Reasoning Arguments, Principle of Clarity, Truth, Deductive validity, Conditional Propositions, Inductive reasoning, Inductive inferences, Deductive v/s Inductive, Formal fallacies, Informal fallacies.	03

Self-Study:	The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents
Suggested Readings/References:	<ol style="list-style-type: none"> 1. Critical Thinking skills for dummies, A Wiley Brand, Martin Cohen, John Wiley & Sons 2. Critical Thinking: Art of Argument, George W Rainbolt , Cengage Learning

	<ul style="list-style-type: none"> 3. Great Critical Thinking Puzzles, Michael A Despezio, Sterling Publishing, NY 4. Think Smarter: Critical Thinking to Improve Problem-Solving and Decision-Making Skills, Micheal Kallet, Wiley 5. Critical Thinking: Your Guide to Effective Argument, Successful Analysis and Independent Study, Tom Chatfield, Sage Publishing
Suggested List of Experiments:	NA
Suggested Case List:	NA