

Faculty of Engineering & Technology

Scientific Thinking

Information :

Course Code : SCT 101

Level : Undergraduate

Course Hours : 2.00- Hours

Department : University Requirments

Course outcomes :

a.Knowledge and Understanding: :

1 -	Discuss the ways that scientific thinking theories are used to assess, predict and change human behavior.
2 -	State major perspectives in scientific thinking.
3 -	Define different scientific thinking terms, concepts and principles.
4 -	Select different human behavior and ways of its motivation.
5 -	Describe insights into their environment and their scientific thinking well-being.

b.Intellectual Skills: :

1 -	Assess human behavior in scientific thinking.
2 -	Criticize research paper in scientific thinking.
3 -	Apply critical thinking using scientific thinking theories and principles on personal relationships.

c.Professional and Practical Skills: :

1 -	Use observational methods to describe, explain, predict as well as control behavior of scientific thinking.
2 -	Show scientific thinking to influence and improve lives of human beings.

d.General and Transferable Skills: :

1 -	Communicate effectively with others by applying the information they gained about scientific thinking.
2 -	Set goals and plans to achieve them.
3 -	Appreciate continuous professional development and lifelong learning.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction: What is scientific Thinking?	2	1	0
Types of scientific thinking-scientific thinking components	2	1	0
Levels of thinking-bloom taxonomyscientific thinkers'; behavior, attitudes and tools	2	1	0

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Elements of science-scientific methodcollecting information-implementation of tools of thinkers as well as scientific method into phases of thinking	2	1	0
Elements of science-scientific methodcollecting information-implementation of tools of thinkers as well as scientific method into phases of thinking [continued]	2	1	0
Concept	2	1	0
Hypothesis-Research assignment discussion	2	1	0
Variable	2	1	0
Strategies and problem solving	2	1	0
Analysis-practice	2	1	0
Analysis-practice	2	1	0
Analysis-practice	2	1	0
Decision making	2	1	0

Teaching And Learning Methodologies :

Interactive Lectures including Discussions
Self-Study (Project / Reading Materials / Online Material / Presentations)
Case Studies

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments	10.00		
Final Exam	40.00		
Individual Projects	15.00		
Midterm Exam (s)	30.00		
Presentations	5.00		