

**Faculty of Economics & Political Science**

**Scientific Thinking**

**Information :**

**Course Code :** SCT 101

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** University Requirments

**Area Of Study :**

This course provides students with basic understanding of scientific thinking. Students will be given exposure to the concepts, terminology, principles and theories that comprise a course in thinking scientifically. Topics covered are to synthesize the broad range of knowledge about thinking scientifically, to emphasize research methodology, to encourage critical thinking, and to convey a scientific as well as systematic approach to think over a concept.

**Course Goals:**

- Orient the mindset of the students towards a scientific one that uses the appropriate logical and academic methods in conducting research in addition.
- Think in a creative and critical manner.
- Work effectively with diverse populations.
- Promote inclusive and therapeutic environments.

**Description :**

This course provides students with basic understanding of scientific thinking. Students will be given exposure to the concepts, terminology, principles and theories that comprise a course in thinking scientifically. Topics covered are to synthesize the broad range of knowledge about thinking scientifically, to emphasize research methodology, to encourage critical thinking, and to convey a scientific as well as systematic approach to think over a concept.

**Course outcomes :**

**a.Knowledge and Understanding: :**

- |     |  |
|-----|--|
| 1 - | Define thinking models drive and structure decision making and problem solving.                  |
| 2 - | Recognize evidence to solve problems of practice and make educational and therapeutic decisions. |

**b.Intellectual Skills: :**

- |     |  |
|-----|--|
| 1 - | Develop lesson plan templates which infuse the following skills.   |
| 2 - | Identify lesson plan, assessment, and graphic organizer templates in which you can place content, and infuse creative and critical thinking. |

**c.Professional and Practical Skills: :**

- |     |   |
|-----|---|
| 1 - | Use critical and creative thinking skills to accelerate learning.             |
| 2 - | Apply critical and creative thinking to your instruction in any content area. |

**d.General and Transferable Skills: :**

- |     |   |
|-----|---|
| 1 - | Uncover Assumptions, Skills at Generating Ideas Creative Thinking Generating Possibilities. |
| 2 - | Evaluate and improve existing ideas to solve problems and make decisions.                   |

|     |  |
|-----|--|
| 3 - | Communicate ideas to resolve controversial issues while applying a step-by-step process. |
| 4 - | Think and argue creatively and critically about various every day subjects.              |

**Course Topic And Contents :**

| Topic                                      | No. of hours | Lecture | Tutorial / Practical |
|--|--------------|---------|----------------------|
| Introduction and Syllabus                  | 2            | 1       |                      |
| What is Critical Thinking?                 | 2            | 1       |                      |
| Basic Logic                                | 2            | 1       |                      |
| Establishing a Foundation                  | 2            | 1       |                      |
| Broaden your perspective                   | 2            | 1       |                      |
| Be a critical reader, listener, and viewer | 2            | 1       |                      |
| Assumptions and reasoning                  | 2            | 1       |                      |
| Midterm Exam                               |              | 1       |                      |
| Methodological believing                   | 2            | 1       |                      |
| The search for challenge                   | 2            | 1       |                      |
| Communicating ideas                        | 2            | 1       |                      |
| Arguments                                  | 2            | 1       |                      |
| Scientific reasoning                       | 2            | 1       |                      |
| Stress and critical thinking               | 2            | 1       |                      |
| Final Exam                                 |              | 1       |                      |

**Teaching And Learning Methodologies :**

|                                    |
|------------------------------------|
| Data show and computer in lectures |
| Demonstration videos               |
| Group discussion                   |
| Research Paper                     |

**Course Assessment :**

| Methods of assessment  | Relative weight % | Week No | Assess What  |
|--|-------------------|---------|--|
| Course Work (Attendance, Participation, Assignments, Quizzes, Research Paper...) | 30.00             |         | To assess understanding and theoretical background of the intellectual and practical skills. |
| Final Exam   | 40.00             | 15      | To assess knowledge and intellectual skills  |
| Midterm Exam   | 30.00             | 8       | To assess professional skills  |

