

RIZVI COLLEGE OF EDUCATION

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STEM LEARNING WITH ARTS

Nurturing Imagination For Innovation

[Add on Course Code: SLA]



RIZVI COLLEGE OF EDUCATION

"Achieve Excellence By Creating Globally Competent Teachers Through World-class Education"

Rizvi College of Education was started in 2003 under the aegis of Rizvi Education Society. In this span of 15 years it has emerged as a premier institute offering B.Ed. course and various add-on courses, creating teachers equipped with the latest trends and technologies in the field of education. The credit for the success of this institute rests with the Honorable President Dr. Akhtar Hasan Rizvi and Director Adv. Mrs. Rubina A.H. Rizvi, whose vision and endeavor to make a difference in the society led to the establishment and growth of the college.



STEM LEARNING WITH

ARTS

Nurturing Imagination For Innovation

STEM stands for science, technology, engineering, and math. Now a days the more common abbreviation seen is STEAM, where A indicates Arts. There exists an enduring relationship between arts and science — math and the STEAM movement would sparkle the imagination of students thus promoting more innovation in their STEM projects. As a result of the integration of Arts in STEM new teaching methods have evolved in the classroom. These methods incorporate performing arts, visual arts and literary arts in STEM Education The 'STEM with Arts' course aims to empower the teachers to develop and practice the use of these different art forms incorporated in STEM topics. This course tries to give an added importance to the use of stories as an art form to teach STEM.

Duration: 30hrs

COURSE FRAMEWORK

Program Learning Outcomes

PLO1: Develop requisite knowledge on the subject matter integrated with necessary pedagogic skills & competencies among the prospective teachers.

PLO6: Develop imaginative, creative, innovative, and entrepreneurial skills among the prospective teachers.

MODULE-1 STEM EDUCATION IN SCIENCE & MATH LEARNING Unit-1 Understanding STEM Education

Course Learning Outcomes

- 1. Understand the meaning and importance of STEM Education
- 2. Know the principles and features of STEM Education
- 3. Create awareness about the status of STEM Education in Indian Education system
- 4. Examine the job opportunities available for STEM Education
- 5. Explore the identity of STEM teachers

Content:

- 1. STEM & STEM Education Meaning And Significance
- 2. Principles & Features of STEM Education
- 3. STEM Education in India
- 4. STEM Education & Job Opportunities
- 5. Teacher's Role in STEM Education

Assignment:

Job market survey and analysis

MODULE 2 STEM TO STEAM – INTEGRATING ART FORMS IN STEM EDUCATION Unit -1. Use of Different Art Forms in STEM Education

Course Learning Outcomes

- 6. Understand the significance of using different art forms in STEM Education
- 7. Identify different art forms that can be used for STEM Education
- 8. Prepare lessons in Science and Mathematics integrating different Art forms
- 9. Discuss about the Ethics in STEM

Content

- 1. STEM to STEAM Introduction of Arts in STEM education
- 2. Significance of the A in STEAM- The Enduring relationship between Arts and Science
- 3. Using Different Art forms for Teaching Science and Mathematics Demonstrations
- 4. Ethics in STEM Education: Discussion/Debate
- 5. My Life Story: A Narrative Technique (Meditation Session)

Assignment

• Prepare and present a topic in Science or Mathematics integrating any art form.

Unit -2. Story Telling In Stem Education

Course Learning Outcomes

- 10. Understand the nature and process of story telling
- 11. Understand the effect of story telling in human brains
- 12. Prepare and present lessons in Science and Mathematics topics using stories

Content:

- 1. The Art of Story Telling: What's a Story? What's the process of Story Telling?
- 2. The Science of Story Telling: The Nueroscience of Story Telling
- 3. Techniques of Story Telling: Digital, Interactive& Performance
- 4. Using Stories to teach Science and Mathematics topics Demonstrations

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Duration: 30 Hours

Training Centre: Rizvi College of Education, Bandra **Participants:** Student-Teachers/School Teachers

Course Fee: Free

COURSE HIGHLIGHTS

- *****Lectures
- *****Lesson Planning
- *****Demonstrations
- ***Practice Lessons**

CHIEF PATRONS

Dr. Akhtar Hasan Rizvi

President, Rizvi Education Society Adv. (Mrs.) Rubina A. H. Rizvi Director.

Rizvi Education Society

PRINCIPAL

Dr. Gyanprakash Arya (Principal I/C, Rizvi College of Education)

COURSE COORDINATOR

Mrs. Spoty Karthik (Assistant Professor, Rizvi College of Education)

