



VALUE ADDED COURSE

A CERTIFICATION COURSE

ON

SOCIAL IMPACT

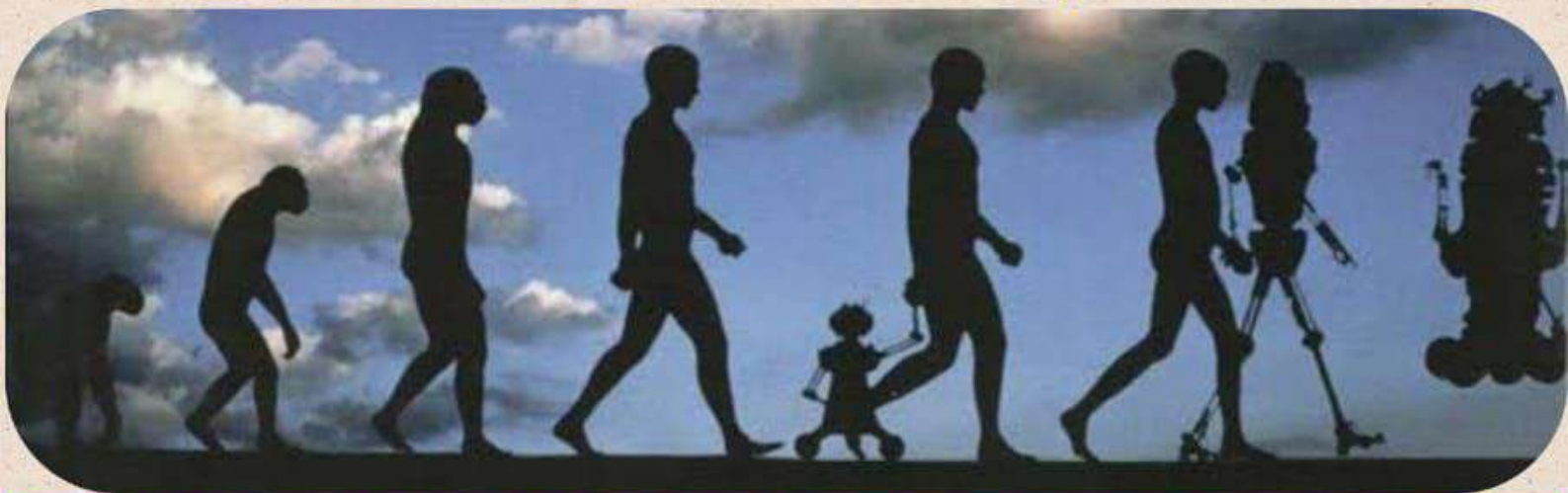
OF

SCIENCE AND TECHNOLOGY

25 SEP, 2023 TO 17 OCT, 2023



RESOURCE PERSON:
MR. SOMENDRA SHARMA
ASSISTANT PROFESSOR, MIMT



Toll Free : 1800 103 3797 | www.mangalmay.net.in

Plot No. 8 & 9, Knowledge Park-II, Greater Noida, Delhi-NCR, India



Schedule of Certification Course on “Social Impact of Science and Technology”

Duration:30 hours

Sr. No.	Resource Person	Topic Covered	Date & Time
1.	Mr. Somendra Sharma	Unit: 1 1. Science and Technology- Concept and principles.	25 Sep, 2023 2:00 PM-4:00 PM.
2.	Mr. Somendra Sharma	2. Science and Technology – Historical development.	26 th Sep, 2023 2:00 PM-4:00 PM
3.	Mr. Somendra Sharma	3. Traditional Scientific and Technological Practices: <ul style="list-style-type: none">• Water harvesting: structures and practices• Agricultural practices based on scientific principles and methods	27 th Sep, 2023 2:00 PM-4:00 PM.
4.	Mr. Somendra Sharma	4. Scientific and Technological Practices in Modern Times: <ul style="list-style-type: none">• Public Health: Nutrition, Hygiene, Physical and Mental Health, Vaccines and Antibiotics• Food Security: Food production and processing• e Governance & IT sector• Energy: Clean & Renewable Energy• Space Science and Exploration• Environment and Eco-friendly practices.	29 th Sep, 2023 2:00 PM-4:00 PM
5.	Mr. Somendra Sharma	5. Contributions of Indian scientists in the field of science since ancient times.	3 rd Oct, 2023 2:00 PM-4:00 PM



6.	Mr. Somendra Sharma	Unit: 2 Scientific Principles and Concepts in Daily Life through observation, experimentation, analysis and discussion by the participation of the students in activities and experiments given below <ul style="list-style-type: none">Observing and documenting flora and fauna of college campus and their locality.	4 th Oct, 2023 2:00 PM-4:00 PM
7.	Mr. Somendra Sharma	<ul style="list-style-type: none">Science laboratories.Science museums, planetarium.Biodiversity parks.	5 th Oct, 2023 2:00 PM-4:00 PM
8.	Mr. Somendra Sharma	<ul style="list-style-type: none">Measuring the height of the college building using a stick.Measuring the curvature of earth using distance and shadow length.Observing transpiration and photosynthesis in plants.Determine acidic or alkaline nature of fruit juices, soap, carbonated drinks by estimating their pH. Developing our own litmus test.	6 th Oct, 2023 2:00 PM-4:00 PM.
9.	Mr. Somendra Sharma	<ul style="list-style-type: none">Identification of celestial objects with the naked eye.Science of musical sounds.	9 th Oct, 2023 2:00 PM-4:00 PM
10.	Mr. Somendra Sharma	<ul style="list-style-type: none">Science of splitting of colors from white light: rainbow, CD-ROM, prism, oil films.Functioning of Lenses, mirrors and the human eye.	10 th Oct, 2023 2:00 PM-4:00 PM
11.	Mr. Somendra Sharma	Unit: 3 Contemporary Issues and Developments <ul style="list-style-type: none">Climate change and global warming.	11 th Oct, 2023 2:00 PM-4:00 PM



12.	Mr. Somendra Sharma	<ul style="list-style-type: none">• Threats to biodiversity and changing natural habitat.• Disaster management.	12 th Oct, 2023 2:00 PM-4:00 PM
13.	Mr. Somendra Sharma	<ul style="list-style-type: none">• Genetically engineered crops	13 th Oct, 2023 2:00 PM-4:00 PM
14.	Mr. Somendra Sharma	<ul style="list-style-type: none">• Artificial intelligence and robot	16 th Oct, 2023 2:00 PM-4:00 PM
15.	Mr. Somendra Sharma	<ul style="list-style-type: none">• Developments in mass communication	17 th Oct, 2023 2:00 PM-4:00 PM

SYLLABUS

Duration: 30 Hours

Course Title: Social Impact of Science and Technology

Course Objectives

- To provide understanding and basic exposure to scientific methods, technologies and developments that have played a significant role in the evolution of human society from ancient to modern times.
- To highlight the importance of Science and Technology for society.
- To instil in students an appreciation for Science and Technology.
- To increase awareness about fundamental scientific concepts that play an important role in our daily life using various examples.
- To develop and enhance among the students the tendencies such as scientific outlook and scientific temper.
- To increase awareness about the scientific and technological developments to make informed decisions in the light of their potential impact on society.

Learning Outcomes:

- Understand the importance and historical development of scientific methods, technological developments.
- Appreciate the value of Science and Technology in society.
- Recognise the role and develop scientific outlook and scientific temper.
- Apply the basic scientific and technological principles to make informed decisions.

UNIT-I:

(5 Lectures)

1. Science and Technology- Concept and principles.
2. Science and Technology – Historical development.
3. Traditional Scientific and Technological Practices:
 - Water harvesting: structures and practices
 - Use of natural environment-friendly designs and materials in Construction.
 - Agricultural practices based on scientific principles and methods.
4. Scientific and Technological Practices in Modern Times:
 - Public Health: Nutrition, Hygiene, Physical and Mental Health, Vaccines and Antibiotics.
 - Food Security: Food production and processing.
 - e Governance & IT sector
 - Energy: Clean & Renewable Energy
 - Space Science and Exploration
 - Environment and Eco-friendly practices.
5. Contributions of Indian scientists in the field of since ancient times.

UNIT-II:

(5 Lectures)

Scientific Principles and Concepts in Daily Life through observation, experimentation, analysis and discussions by the participation of the students in activities and experiments given below:

- Observing and documenting flora and fauna of college campus and their locality.

- Science laboratories in the College.
- Science museums, planetarium.
- Biodiversity parks.
- Measuring the height of the college building using a stick.
- Measuring the curvature of earth, using distance and shadow length.
- Observing transpiration and photosynthesis in plants.
- Determine acidic or alkaline nature of fruit juices, soap, carbonated drinks by estimating their pH. Developing our own litmus test.
- Identification of celestial objects with the naked eye
- Science of musical sounds
- Science of splitting of colours from white light: rainbow, CD-ROM, prism, oil films.
- Functioning of Lenses, mirrors and the human eye.

UNIT-III:

(5 Lectures)

Contemporary Issues and Development

- Climate change and global warming
- Threats to biodiversity and changing natural habitat.
- Disaster management.
- Genetically engineered crops
- Artificial intelligence and robotics
- Developments in mass communication.

References:

- John Avery (2005). Science and Society, 2nd Edition,
- Dharampal (2000). Indian Science and Technology in the Eighteenth Century
- Gopalakrishnan (2006). Inventors who Revolutionised our Lives. National Book Trust
- Yash Pal and Rahul Pal (2013) Random Curiosity. National Book Trust

Assessment Methods

Multiple Choice Questionnaire (MCQ)

Internal Assessment: 100%



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Date: 21st September, 2023

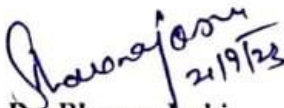
Notice

This is to inform all the students of B.Ed. II year that a **Certification Course** on “**Social Impact of Science and Technology**” is being organized from **25th Sep 2023** to **17th Oct, 2023** designed to enhance the understanding of the importance of science and technology in society and inculcate among them the scientific temper and scientific attitude.

Course Details:

- **Timing:** 2:00 pm to 4:00 pm
- **Resource Person:** Mr. Somendra Sharma, Assistant Professor, Department of Education, MIMT

Course certificate will be issued after the successful completion of the course. It is mandatory for all the registered students to attend all the classes regularly.


21/9/23

Dr. Bhavna Joshi
HOD



Mr. Ashish Mishra
Convener

Annexure:

Syllabus
Schedule

CC to:

Principal
IQAC Coordinator
Faculty Members
Notice Board
Office File



	Report
Name of the Course	Certification Course on “ Social Impact of Science and Technology ”
Date	25th September 2023(Monday) to 17th October, 2023(Tuesday)
Venue	Classroom, Block C
Organized by	School of Education, MIMT
Participated by	59 Students of B.Ed. II year
Convener	Mr. Ashish Mishra,Assistant Professor,Department of Education,MIMT
Resource Person	Mr. Somendra Sharma,Assistant Professor,Department of Education,MIMT
Objective	<p>This Certification Course on “Social Impact of Science and Technology” will be able:</p> <ul style="list-style-type: none">• To provide understanding and basic exposure to scientific methods, technologies and developments that have played a significant role in the evolution of human society from ancient to modern times.• To highlight the importance of Science and Technology for society.• To instil in students an appreciation for Science and Technology.• To increase awareness about fundamental scientific concepts that play an important role in our daily life using various examples.• To develop and enhance among the students the tendencies such as scientific outlook, scientific temper and scientific attitude.• To increase awareness about the scientific and technological developments to make informed decisions in the light of their potential impact on society.



Content	<p>Planning & Execution: Mr. Ashish Mishra was assigned the responsibility to conduct the course. The proposal was forwarded to the Management to get it approved. It was accepted on 18th September, 2023. Thereafter, Mr. Somendra Sharma (Assistant Professor, MIMT) was approached to conduct the course. He was convinced and sent the course schedule. The Plan of Action was prepared.</p> <p>Day-wise Activity:</p> <p>Day 1 (25th Sep, 2023) On the First day in Session-1, Mr. Somendra Sharma discussed about concept and principles of Science and Technology.</p> <p>Day 2 (26th Sep, 2023) On the Second day in Session-2 Mr. Somendra Sharma discussed about historical development of Science and Technology.</p> <p>Day 3 (27th Sep, 2023) On the Third day in Session-3, Mr. Somendra Sharma discussed traditional Scientific and Technological practices such as Water harvesting-structures and practices, & Agricultural practices based on scientific principles and methods.</p> <p>Day 4 (29th Sep, 2023) On the Fourth day in Session-4, Mr. Somendra Sharma discussed about Scientific and Technological Practices in Modern Times such as:</p> <ul style="list-style-type: none">•Public Health: Nutrition, Hygiene, Physical and Mental Health, Vaccines and Antibiotics.•Food Security: Food production and processing•e Governance & IT sector•Energy: Clean & Renewable Energy•Space Science and Exploration•Environment and Eco-friendly practices <p>Day 5 (3rd Oct, 2023) On the Fifth day in Session-5, Mr. Somendra Sharma discussed about the contributions of Indian scientists in the field of since ancient times.</p> <p>Day 6 (4th Oct, 2023) On the Sixth day in Session-6, Mr. Somendra Sharma discussed about observing and documenting flora and fauna of college campus and other locality.</p> <p>Day 7(5th Oct, 2023) On the Seventh day in Session-7, Mr. Somendra Sharma discussed about science laboratories, science museums, planetarium and biodiversity parks.</p> <p>Day 8 (6th Oct, 2023) On the Eight day in Session-8, Mr. Somendra Sharma discussed about the activities such as measuring the height of the college building using a stick; measuring the curvature of earth using distance and shadow length; observing transpiration and photosynthesis in plants. It was learned to determine acidic or alkaline nature of fruit juices, soap, carbonated drinks by estimating their pH.</p> <p>Day 9(9th Oct, 2023) On the Ninth day in Session-9, Mr. Somendra Sharma discussed about the identification of celestial objects with the naked eye and science of musical sounds.</p> <p>Day 10 (10th Oct, 2023) On the tenth day in Session-10 Mr. Somendra Sharma discussed about the Science of splitting of colors from white light involving rainbow, CD-ROM, prism, oil films. Functioning of Lenses, mirrors and the human eye was also discussed.</p> <p>Day 11 (11th Oct, 2023) On the eleventh day in Session-11, Mr. Somendra Sharma discussed about Climate change and Global warming.</p> <p>Day12(12th Oct, 2023) On the Twelfth day in Session-12 Mr. Somendra Sharma discussed about threats to biodiversity, changing natural habitat and Disaster management.</p> <p>Day 13(13th Oct, 2023) On the next day in Session-13, Mr. Somendra Sharma discussed about the Genetically engineered crops.</p> <p>Day 14 (16th Oct, 2023) On the fourteenth session-14, Mr. Somendra Sharma discussed about the Artificial intelligence and robotics.</p> <p>Day 15 (17th Oct, 2023) On the last day in Session-15, Mr. Somendra Sharma discussed about the developments in mass</p>
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communication.



Outcome	<p>The learning outcomes of the Certification Course on “Social Impact of Science and Technology”, were:</p> <ul style="list-style-type: none">• Students were able understand scientific methods, technologies and developments that have played a significant role in the evolution of human society from ancient to modern times.• The activity highlights the importance of Science and Technology for society.• The activity instilled in students an appreciation for Science and Technology.• The activity increased the awareness about fundamental scientific concepts that play an important role in our daily life using various examples.• Through this activity students were able to develop and enhance the tendencies such as scientific outlook, scientific temper and scientific attitude.• Through this activity awareness of participants increased about the scientific and technological developments to make informed decisions in the light of their potential impact on society <p>A total of 59 students of B.Ed. II year participated in this course. The course was highly interactive and extremely motivating for the students.</p>
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Photographs of the Certification Course on "Social Impact of Science and Technology"



Resource Person, Mr. Somendra Sharma taking a session



Resource Person, Mr. Somendra Sharma interacting during a session



List of Registered Students of B.Ed. II Year of Certification Course on “Social Impact of Science and Technology ”

Sr. No.	Enrollment No.	Student Name	Registered Status	Completion Status
1	220045432	RANI MADHESHIYA	Registered	Completed
2	220045433	RANJANA MISHRA	Registered	Completed
3	220045434	RAZI AHMAD	Registered	Completed
4	220045435	RENU DEVI	Registered	Completed
5	220045436	RICHA DASS	Registered	Completed
6	220045437	RIMJHIM KUMARI	Registered	Completed
7	0996261	RIMPI TYAGI	Registered	Completed
8	220045438	ROHITA SHARMA	Registered	Completed
9	220045439	ROSHANI KUMARI	Registered	Completed
10	220045440	RUCHI BHALLA	Registered	Completed
11	220082362	SANGEETA RATHORE	Registered	Completed
12	0794837	SANTOSH KUMAR	Registered	Completed
13	220045442	SANU KUMAR	Registered	Completed
14	220045443	SAPNA MALL	Registered	Completed
15	220045444	SATISH KUSHWAHA	Registered	Completed
16	220045445	SAURABH KUMAR PANDEY	Registered	Completed
17	220082363	SHEEBA KHAN	Registered	Completed
18	220082364	SHIDHANT RAJ	Registered	Completed
19	220082365	SHIKHA	Registered	Completed
20	220045449	SHIKHA YADAV	Registered	Completed
21	220045450	SHILPI	Registered	Completed



22	220045456	SHIV KUMARI	Registered	Completed
23	220045457	SHIV PRATAP	Registered	Completed
24	220045451	SHIVAM TIWARI	Registered	Completed
25	220045452	SHIVANGEE GUPTA	Registered	Completed
26	220045453	SHIVANI	Registered	Completed
27	220045454	SHIVANI MISHRA	Registered	Completed
28	16080580	SHIVANI SHARMA	Registered	Completed
29	220045455	SHIVANI TOMAR	Registered	Completed
30	220045458	SHIVSHANKAR GAUR	Registered	Completed
31	220045459	SHUBHAM MISHRA	Registered	Completed
32	220045460	SIDHI KUMARI	Registered	Completed
33	220045461	SIMRAN CHAUHAN	Registered	Completed
34	19291277	SIMRAN SAHOO	Registered	Completed
35	220045462	SIMRAN YADAV	Registered	Completed
36	220045463	SNEH AWANA	Registered	Completed
37	220045465	SONI SHARMA	Registered	Completed
38	220045464	SONIKA GAUTAM	Registered	Completed
39	12557286	SONIYA SHARMA	Registered	Completed
40	220045466	SUNIL KUMAR YADAV	Registered	Completed
41	220045467	SUSHMA	Registered	Completed
42	220045468	SWATI BHARADWAJ	Registered	Completed
43	220082366	SWATI BHATI	Registered	Completed
44	220045470	SWATI SINGH	Registered	Completed
45	220045471	SWETA KUMARI	Registered	Completed
46	220045473	TANNU TOMAR	Registered	Completed
47	19234837	TANU	Registered	Completed
48	220045474	TANU TIWARI	Registered	Completed



49	220045475	TANYA BHATI	Registered	Completed
50	220045476	UMA PRAJAPATI	Registered	Completed
51	220045477	UPASNA	Registered	Completed
52	220082367	VANDANA	Registered	Completed
53	19225527	VARSHA BAISOYA	Registered	Completed
54	220045479	VERSHA	Registered	Completed
55	220045480	VIDYA VAID	Registered	Completed
56	220082368	VIKASH KUMAR	Registered	Completed
57	220045482	VIRENDRA KUMAR DUBEY	Registered	Completed
58	220045484	VIVEK KUMAR	Registered	Completed
59	220045483	VIVEK KUMAR	Registered	Completed



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Expert Profile

Mr. Somendra Sharma

Core Skills: Value Education, Personality Development & Communication Skills

Qualification: B.Sc., B.ED., M.ED., M.Sc. (Chemistry), UGC NET(Education)

Experience: 5+ years

Research Area: Science, English & Education