

Government General Degree College, Muragachha
Department of Chemistry

offers 30 hours certificate course
ON

The drawbacks of plastic and its sustainable alternatives

[From 26th December, 2021 to 30th December, 2021]



- ✓ Understand the environmental and health impacts of plastic pollution.
- ✓ Gain knowledge about the lifecycle of plastics
- ✓ Identify sustainable alternatives to conventional plastics.
- ✓ Develop practical skills for implementing sustainable practices in various sectors.

Contact Now: 08100024528

ALL THE CLASSES WILL BE HOLD IN SEMINAR-II



Govt. of West Bengal

Government General Degree College, Nakashipara Department of Chemistry

Muragachha, Nadia, Pin – 741154

e-mail: chemistry.mgc15@gmail.com

Value added course

Course Title: The Drawbacks of Plastics and Sustainable Alternatives

Course duration: 30 hours

Course Overview:

This course aims to provide an in-depth understanding of the environmental and health impacts of plastic usage and explore sustainable alternatives. Participants will learn about the lifecycle of plastics, their drawbacks, and how to mitigate these issues through sustainable practices and materials.

Learning Objectives:

- Understand the environmental and health impacts of plastic pollution.
- Gain knowledge about the lifecycle of plastics.
- Identify sustainable alternatives to conventional plastics.
- Develop practical skills for implementing sustainable practices in various sectors.

Course Structure:

The course is divided into five modules, each consisting of six hours of lectures, discussions, and practical activities.

Module 1: Introduction to Plastics and Their Drawbacks (6 hours)

1. Session 1: History and Types of Plastics (1 hour)

- Overview of the development and types of plastics.

Officer-in-Charge
Govt. General Degree College, Nakashipara
Muragachha, Nadia



Govt. of West Bengal

Government General Degree College, Nakashipara

Department of Chemistry

Muragachha, Nadia, Pin – 741154

e-mail: chemistry.mgc15@gmail.com

- Common uses and applications.

2. Session 2: Environmental Impact of Plastics (2 hours)

- How plastic consumed the whole civilization.
- Pollution and its effects on ecosystems.
- Case studies on marine and terrestrial pollution.

3. Session 3: Health Impacts of Plastics (2 hours)

- Microplastics and their effects on human health.
- Chemicals in plastics: BPA, phthalates, etc.

4. Session 4: Plastic Waste Management Issues (1 hour)

- Current waste management practices.
- Challenges in recycling and disposal.

Module 2: Lifecycle Analysis of Plastics (6 hours)

1. Session 1: Production and Raw Materials (1 hour)

- Raw materials used in plastic production.
- Energy consumption and carbon footprint.

2. Session 2: Usage and Consumer Behavior (1 hour)

- Patterns of plastic use in various industries.

Officer-in-Charge
Govt. General Degree College, Nakashipara
Muragachha, Nadia



Govt. of West Bengal

Government General Degree College, Nakashipara

Department of Chemistry

Muragachha, Nadia, Pin – 741154

e-mail: chemistry.mgc15@gmail.com

- Consumer habits and their impact on plastic waste.

3. Session 3: End-of-Life Scenarios (2 hours)

- Landfilling, incineration, and recycling.
- Case studies on waste management systems.

4. Session 4: Lifecycle Assessment Tools (2 hours)

- Introduction to lifecycle assessment (LCA) tools.
- Practical session on conducting an LCA.

Module 3: Sustainable Alternatives to Plastics (6 hours)

1. Session 1: Bioplastics and Biodegradable Plastics (2 hours)

- Types and applications of bioplastics.
- Pros and cons of biodegradable plastics.

2. Session 2: Natural Fibers and Plant-Based Materials (2 hours)

- Use of jute, bamboo, and other natural fibers.
- Case studies on successful implementations.

3. Session 3: Innovative Materials and Technologies (2 hours)

- Emerging materials and their potential.
- Discussion on future trends and research.

Officer-in-Charge
Govt. General Degree College, Nakashipara
Muragachha, Nadia



Govt. of West Bengal

Government General Degree College, Nakashipara

Department of Chemistry

Muragachha, Nadia, Pin – 741154

e-mail: chemistry.mgc15@gmail.com

Module 4: Policy, Regulation, and Corporate Responsibility (6 hours)

1. Session 1: Global and Local Policies (2 hours)

- Overview of regulations on plastic usage and waste.
- Analysis of policy effectiveness.

2. Session 2: Corporate Responsibility and Sustainability (2 hours)

- Role of businesses in reducing plastic usage.
- Case studies of corporate initiatives.

3. Session 3: Consumer Advocacy and Education (2 hours)

- Importance of consumer awareness.
- Strategies for effective education campaigns.

Module 5: Practical Implementation and Case Studies (6 hours)

1. Session 1: Designing Sustainable Products (3 hours)

- Principles of eco-friendly product design.
- Workshop on designing a sustainable product.

2. Session 2: Community Initiatives and Grassroots Movements (3 hours)

Officer-in-Charge
Govt. General Degree College, Nakashipara
Muragachha, Nadia



Govt. of West Bengal

Government General Degree College, Nakashipara Department of Chemistry

Muragachha, Nadia, Pin – 741154

e-mail: chemistry.mgc15@gmail.com

- Examples of successful community projects.
- How to initiate and manage community-based sustainability projects.

Conclusion:

By the end of the course, participants will have a comprehensive understanding of the drawbacks of plastics and be equipped with knowledge and skills to advocate for and implement sustainable alternatives in various contexts.

Officer-in-Charge
Govt. General Degree College, Nakashipara
Muragachha, Nadia



Government of West Bengal

Government General Degree College Muragachha

Office of the Principal

MURAGACHHA, NAKASHIPARA, NADIA, PIN- 741154

Notice No.- MGC/UEM-08/2021

Date 13/12/2021

NOTICE

It is hereby notified for all concerned that the course conducted by Department of Chemistry on "The Drawbacks of Plastic and it's Sustainable Alternatives" will commence from 26-12-2021 to 30-12-2021. Interested students may enroll their names to Dr. Sudipta Kr. Kundu, the co-ordinator of the course. Syllabus of the course and routine will be announced in due time.

Officer-in-Charge

Government General Degree College, Muragachha
Muragachha, Nadia-741154, W.B

*Officer-in-Charge
Govt. General Degree College Muragachha
Muragachha Nakashipara Nadia*

13/12/2021
Head

Department of Chemistry
Government General Degree College,
Muragachha
Muragachha, Nadia-741154, W.B.

