

MUGBERIA GANGADHAR MAHAVIDYALAYA

P.O.—BHUPATINAGAR, Dist.—PURBA MEDINIPUR, PIN.—721425, WEST BENGAL, INDIA

NAAC Re-Accredited B+Level Govt. aided College

CPE (Under UGC XII Plan) & NCTE Approved Institutions

DBT Star College Scheme Award Recipient

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Project Details of UG Mathematics Syllabus of Project

The dissertation project will be performed on research/review work on research papers. For project work, one class will be held in every week. UG SEM-2 ENVS(AECC)

Ability Enhancement Compulsory Course (AECC - Environmental Studies)

Environmental Studies

Credits: 4

Unit 1: Introduction to environmental studies

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development. (2 lectures)

Unit 2: Ecosystems

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems:
 - a) Forest ecosystem
 - b) Grassland ecosystem
 - c) Desert ecosystem
 - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lectures)

Unit 3: Natural Resources: Renewable and Non---renewable Resources

• Land resources and land use change; Land degradation, soil erosion and desertification.



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- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Joint forest management.
- Water: Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
- Energy resources: Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

(8 lectures)

Unit 4: Biodiversity and Conservation

- Levels of biological diversity: genetic, species and ecosystem diversity; Bio-geographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity: Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity: In---situ and Ex---situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value. (8 lectures)

Unit 5: Environmental Pollution

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- · Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.
- · Pollution case studies.
- · Noise pollution.

(8 lectures)

Unit 6: Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.
- Environmental policy and gender issues.

(7 lectures)

Unit 7: Human Communities and the Environment

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management: floods, earthquake, cyclones and landslides.
- Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

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(6 lectures)

Unit 8: Field work

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.
- Disaster management.
- · Coastal ecosystem.

(5 lectures)

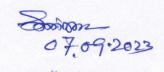
SI No.	Name of student	Roll No.	Guide/Mentor	Project title
1	Anima Das	1121129 - 220118	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Why noise control must be considered in the context of sustainable development.
2	AninditaMaity	1121129 - 220119	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Why noise control must be considered in the context of sustainable development.
3	Anwesha Makur	1121129 - 220120	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Investigating changes in noise pollution due to the COVID – 19 lockdown.
4	ArpitaBera	1121129 - 220121	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Investigating changes in noise pollution due to the COVID – 19 lockdown.
5	AtreyeeParia	1121129 - 220122	Mr. Hiranmoy Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	An assessment of noise pollution and it's effect on human health in industrial hub of India
6	BibekGiri	1121129 - 220123	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Noise pollution and human health
7	BithikaKhatua	1121129 - 220124	Mr. Hiranmoy Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	The impact of roads on birds: does song frequency play a role in determining susceptibility to noise pollution?
8	DebayanPandit	1121129 - 220125	Mr. SubhamMaity Contractual Assistant Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	Common causes and effects of noise pollution
9	MallikaChanda	1121129 - 220126	Mr. Hiranmoy Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	The impact of roads on birds: does song frequency play a role in determining susceptibility to noise pollution?



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10	Mohan Kumar Paria	1121129 - 220127	Mr. SubhamMaity Contractual Assistant Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	Common causes and effects of noise pollution.
11	Moumita Jana	1121129 - 220128	Mr. Hiranmoy Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	The impact of roads on birds: does song frequency play a role in determining susceptibility to noise pollution?
12	Palash Das	1121129 - 220130	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Noise pollution and human health
13	Paramita Jana	1121129 - 220131	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Why noise control must be considered in the context of sustainable development.
14	PoulamiBera	1121129 - 220132	Mr. Hiranmoy Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	An assessment of noise pollution and it's effect on human health in industrial hub of India.
15	PrajnaParamitaMaity	1121129 - 220134	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Effects of noise pollution and green muffler scheme
16	Prashanta Rana	1121129 - 220135	Mr. SubhamMaity Contractual Assistant Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	Common causes and effects of noise pollution
17	SankariMaity	1121129 - 220137	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Impact of aircraft noise pollution on residents of large cities.
18	SathiGiri	1121129 - 220139	Dr. KalipadaMaity Associate Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	Investigating changes in noise pollution due the COVID – 19 Lockdown
19	Satyajit Jana	1121129 - 220140	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Effects of noise pollution and green muffler scheme.
20	Shirshendu Mandal	1121129 - 220141	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Impact of aircraft noise pollution on residents of large cities.
21	Shreya Bhunia	1121129 - 220142	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Physical effects of noise pollution and governmental restrictions on it.
22	Shreya Shit	1121129 - 220143	Mr. SubhamMaity Contractual Assistant Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	A retrospective view of noise pollution control policy in India. Status, proposed revisions and control measure
23	Soumitra Das	1121129 - 220145	Mr. SubhamMaity Contractual Assistant Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	A retrospective view of noise pollution control policy in India. Status,





				proposed revisions and control measure
24	SriparnaMondal	1121129 - 220147	Mr. Hiranmoy Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	An assessment of noise pollution and it's effect on human health in industrial hub of India
25	SubhasisGiri	1121129 - 220148	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Noise pollution and human health.
26	Sudipa Jana	1121129 - 220149	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Physical effects of noise pollution and governmental restrictions on it
27	Sulekha Rani Maity	1121129 - 220150	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Impact of aircraft noise pollution on residents of large cities.
28	Suman Das	1121129 - 220151	Mr. SubhamMaity Contractual Assistant Professor Dept. of Mathematics MugberiaGangadharMahavidyalaya	A retrospective view of noise pollution control policy in India. Status, proposed revisions and control measure
29	Surajit Jana	1121129 - 220152	Mr. SumanGiri SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Effects of noise pollution and green muffler scheme.
30	SwarnaliMondal	1121129 - 220153	Mr. Debraj Manna SACT, Dept. of Mathematics MugberiaGangadharMahavidyalaya	Physical effects of noise pollution and governmental restrictions on it.



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