

University of Science & Technology Meghalaya

Department of Earth science

Lesson Plan

Session: Odd Semester

ProgramM.A/M.Sc. in Geography	Semester:III
Name of the Course Research Methodology Paper Code:	

Details Plan

Unit	Topic	Targeted No. of classes	Tentative Schedule (DoC-DoE)	Tentative Pedagogy	Unit Allotted for Sessional Test	Remarks
UN'T	Data Processing and Analysis Salient features of processing of qualitative and quantitative data	1		Ofline class	Test-I	Class assignments, mock mcq test, seminars will be incorporated
	Variable construction, tabulation and charting	1		Ofline class		in between.
	Data processing tools - GIS Software packages and their analytical tools	1		Ofline class		
	SPSS and R	1		Ofline class		
	Hypothesis testing and validation with specific examples,	1		Ofline class	Test _II	
	Data interpretation, analysis and conclusions.	1	ň	Ofline class		
UNIT - IV:	Research Process Moral and ethical questions in scientific writing	1	-	Ofline class	2	
	Plagiarism	1		Ofline class		
	paraphrasing and copyright violation.	1		Ofline class Ofline class		

Importance of revisions and Specific guide lines on	1	Ofline class	
punctuation			
using quotations.	1	Office	
footnotes	1	Ofline class	
The state of the s	-	Ofline class	
references and bibliography	1	Ofline class	

- 1. Wililam J. Goode and Paul H. Hatt, 1981: Methods In Social Research, Indian Edition, MsGraw Hill, New Delhi
- 2. Sir Claus Moser and GrhamKalton, 1985: Survey Methods in Social Investigation, Dartmouth, New

3. Paul Oliver, 2008: Writing Your Thesis, 2nd Edition, Sage, New Delhi

- 4. Bridget Somekh and Cathy Lewin, 2005: Research Methods in the Social Sciences, Vistaar, New
- 5. Kothari C.R., 2004, Research Methodogy Methods and Techniques, New Age International (P) Limited, Publishers, New Delhi.

Approved by HoD

Signature of the Faculty



University of Science & Technology Meghalaya

Department of		
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Lesson Plan

Session: Odd Semester

ProgramM.A	√M.Sc. in Geography	Semester:III
Name of theCou	rse":Hazards and Disaster N MGE 304B	Ianagement: Basic Concepts
Name of the Fac	culty:Dr. Eahya Al Huda	

Details Plan

Unit	Topic	Targeted	Tentative	Tentative	TT to A !!	-
01	-4C	No. of classes	Schedule (DoC-DoE)	Pedagogy	Unit Allotted for Sessional Test	Remarks
UNI	Floods	2	 		j, st	
T-III		,		Off line class	Test-I	Class assignments, mock mcq test, seminars will be incorporated
	Droughts					in between.
	- 10 48110	2		Off line class		a concen
7	Snow falls	2				
		12		Off line class	1	
4	Cloudburst	2				
		-		Off line class	Test-II	
	Cyclones	2		Otti		
	Tsunamis	2		Off line class		
		2		Off line class		
gested E	Books:					-

- 1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
- 2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
- 3. Central Water Commission, 1987, Flood Atlas of India, CWC, New Delhi. 4. Central Water Commission, 1989, Manual of Flood Forecasting, New Delhi.
- 5. Government of India, 1997, Vulnerability Atlas of India, New Delhi.
- 6. Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India,

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Approved by HoD

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Signature of the Faculty

Program M.Sc. in Environmental Science

Name of Course: Research Methodology

Semester: Third

Course Code: MEV 301

Name of the Teacher: Dr. Anindita Bhattacharva

			LESS	ON PLAN
Sl. No	Day	Unit No.	Unit Title	Topic
1	1			Definitions of research
2	2	1		Meaning of research
3	3			Characteristics of science and scientific methods
4	4			Steps in scientific method
5	5			Objectives of research
6	6			Types of research
7	7		-I Introduction to Research	Research formulation and Designs: Observation and Facts
8	8	UNIT-I		Research formulation and Designs: Prediction and Explanation, Induction
9	9			Basic principle of Research design: Meaning, Need
10	10			Research formulation and Designs: features of good design
11	11			Types of Research design.
12	12			Hypothesis: meaning, types
13	13			Hypothesis: formulation of hypothesis
14	14			Hypothesis: importance of hypothesis
15	15		*	Hypothesis: difficulties in applying hypothesis
16	16			Sampling –Definitions and meanings
17	17			Sampling - types
18	18			Sampling - procedure
19	19		-	Sampling - selection
20	20			Sampling - merits and demerits,
21	21			Data collection –Definitions of data
22	22			Data collection - sources of data collection
23	23	T IN TIRM YY	Sampling and	Data collection - primary and secondary data
24	24	UNIT-II	Data Collection	Data collection techniques of data collection-i
25	25		Data Collection	Data collection techniques of data collection-ii
26	26			Data collection - empirical observation
27	27		-	Data collection - interview
28	28			Data collection - questionnaire
29	29			Data collection - questionnaire Data collection - interview
30	30		5	
50			Data collection –data collection scheduling and its importance.	

Program M.Sc. in Environmental Science

Name of Course: Climate Change and Environmental

Management

Semester: Third

Course Code: MEV 302

~-				ON PLAN		
Sl. No	Day	Unit No.	Unit Title	Topic		
1	1			Concept of environmental management-i		
2	2			Concept of environmental management-ii		
3	3		Environmental Planning			
4	4			EIA process		
5	5			EIA- Projects screening		
6	6			EIA- scoping		
7 8	7			EIA- impactidentification		
9	8		Y . 1	EIA- prediction		
10	9		Introduction to	EIA- Evaluation		
11	10 11	UNIT-III	Environmental	EIA- mitigation and monitoring		
12	12	-	Management	EIA regulations and notifications in India.		
13	13	-		Environmental Management Plan		
14	14			Environmentalauditing-i		
15	15			Environmentalauditing-ii	Environmentalauditing-ii	
16	16					Cost benefit analysis
	10			Public participation in environmental decision making		
17	17		7	ISO certification		
18	18			Ecomark		
19	19			Concept of sustainable development-i		
20	20			Concept of sustainable development-ii		
21	21		sustainability			
22	22	1		Indicators of sustainability		
23	23	1 1		Sustainable management C		
				Sustainable management of renewable resources: land resource		
24	24					
				Sustainable management of renewable		
25	25			resources: water resource		
		UNIT-IV	Sustainable	Sustainable management of renewable		
26	26	OIII-IV	Development	resources: forest resource		
	20			Sustainable management of non-renewable		
27	27			resources: mineral resource		
-	21			Sustainable management of non-renewable		
28	28	18		resources: fossil fuels		
29				Strategies for Sustainable development		
29	29			Environmental priorities in India for		
20	- 20			sustainable development		
30	30			Challenges to meet sustainability an		
				sustainable development goals		

Program: M.Sc. in Environmental Science

Semester: Third

Name of Course: Wildlife Ecology: Wildlife Habitat

Course Code: MEV 304 (A)

and Population

Name of the Teacher: Dr. Anindita Bhattacharya

OI No I				ON PLAN			
Sl. No	Day	Unit No.	Unit Title	Topic			
1	1			Wildlife-definitions			
2	2		Characteristic of terrestrial ecosystem				
3	3			Composition and distribution of terrestrial ecosystem			
4	4		Characteristic of grassland ecosystem				
5	5	Introduction		Composition and distribution of grassland ecosystem			
6	6		Characteristic of forest ecosystems				
7	7	UNIT-I	to wildlife habitat-I	Composition and distribution of forest ecosystems			
8	8			Grassland ecosystem NE India as wildlife habitat			
9	9			Forest ecosystem NE India as wildlife habitat			
10	10			Wetlands of India as wildlife habitat			
11	11			Wetlands of NE India as wildlife habitat			
12	12			Wildlife zones in India-i			
13	13			Wildlife zones in India-ii			
14	14			Wildlife census-i			
15	15				Wildlife census-ii		
16	16			Population survey-i			
17	17			Population survey-ii			
18	18			Wildlife corridors-i			
19	19			Wildlife corridors-ii			
20	20			Human dimensions in wildlife habitat-i			
21	21			Human dimensions in wildlife habitat-i			
22	22			Human-animal conflict-i			
23	23			Human-animal conflict-ii			
24	24	UNIT-IV	Wildlife	Human-animal conflictissues			
25	25	ONIT-IV	census and conflict issues	Human-animal conflictcases			
26	26		conflict issues	Human-animal conflict-factors leading to human			
				wildlife conflicts			
27	27			Case studies of some important wildlife of India wit			
				special reference to India-i			
28	28			Case studies of some important wildlife of India with			
				special reference to India-ii			
29	29			Case studies of some important wildlife of India with			
				special reference to N.E. India-i			
30	30		Al .	Case studies of some important wildlife of India with			
			special reference to N.E. India-ii				

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Program: M.Sc.in Environmental Science

Name of Course: Environmental Pollution

Nameof the Teacher: Dr. Anindita Bhattacharya

Semester:First

Course Code: MEV-103

Sl. No	Day	Unit No.	UnitTitle	Topic		
1	1			Pollution-Definition, typesand sourcesofpollution		
2	2			Primaryand secondarypollutants		
3	3			Determinantsofairpollutants		
4	4			Transports and diffusionofpollutants ofpollutants		
5	5	UNIT-I		Criteriaairpollutants		
6	6			Methodsofmonitoring		
7	7			Controlofairpollution-1 st part		
8	8			Controlofairpollution-2 nd part		
9	9			O3layerdepletion-backgroundandorigin and impact		
10	10			Acidrain-background andorigin		
11	11		AirPollution	Acidrain-Impact		
12	12			And onution	Effectsof pollutantson humanbeings	
13	13				Effectsofpollutantsonplants and animals	
14	14					Effectsofpollutantsonmaterials
15	15			Effectsofpollutantsonclimate		
16	16					Airqualitystandards
17	17					Trans-boundaryairpollution
18	18			Implicationofairpollutants		
19	19			Simpleairpollutionmodels		
20	20			Festivalsandairpollution		
21	21			Waterpollution-definition and types		
22	22			Waterpollution-sources and effectsonenvironmen		
23	23			waterqualitystandards		
24	24			Eutrophication		
2.5	25			Wastewatertreatment		
26	26			Wastewaterrecycling		
7	27					
.8	28			Oilpollution-definition, sources, types and impact		
.9	29		(6)	Marinepollution:Definitionandsources Marinepollution:types		

30	30			Marinepollution:control	
31	31			Thermalpollution-definitionandsources	
32	32	UNIT-II	WaterP ollution	Thermalpollution-types	
33	33		Onation	Thermalpollution-impact	
34	34			Emergingwaterpollutants	
35	35			Festivalsandwaterquality.	
36	36			Soilpollution-Definition	
37	37			Sourcesofsoilpollution	
38	38			Soilpollution-types	
39	39			Physico-chemicalsamplingof soilquality-1 st part	
40	40			Physico-chemicalsamplingof soil quality-2 nd part	
41	41			Physico-chemicalanalysisof soilquality	
42	42		9:	Interactionofwaste effluentswithsoilcomponent,	
43	43	UNIT- III		SoilPollution	Interactionofheavymetalswith soil component,
44	44			III	Souronution
45	45			Soilpollutioncontrol-physical	
46	46			Soilpollutioncontrol-biological	
47	47			Pesticidepollution-Definitionandsources	
48	48			Pesticidepollution-types and impacts	
49	49			Radioactivepollution-definition, source and effect	
50	50			Radioactivepollution- effect	
51	51			Atmosphericdepositionandsoilhealth	
52	52			Interaction of waste effluents and heavy metals with soil component-i	
53	53			Interaction of waste effluents and heavy metals with soil	
54	54			component-ii	
55	55			Noisepollution-source	
56	56			Noisepollution-measurement of noise pollution	
57	57	UNIT-	NoisePollution	Noiseexposurelevels	
58	58	IV		effectofnoisepollution	
59	59			Noisecontrol-Mechanical	
				Noisecontrol-legal	
60	60			Noiseabatementmeasures	

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Department: Earth Science

Name of the faculty: Dr Lalit Saikia

Program: MSc Environmental Science & MA/MSc Geography

Course: Hazards and Disaster Management: Basic Concepts

Semester: III

Course code: MEV 304 B

 $Total\ Lecture\ in\ a\ Week=2$

 $Total\ week = 9$

Total Lecture = 18

Sl No	Day	Unit No	Торіс	Remarks*
1	1		Definitions and concepts of Hazard, Risk,	
		I:	Vulnerability, Capacity and Disaster	
2	2		Types, causes and effects of Hazards	
3	3	Understand	Difference between Hazard and Disaster, Different stages involved in Disaster	
4	4	ing Hazard and	Disaster phenomena and events (Global)	
5	5	Disaster	Disaster phenomena and events (national)	
6	6	Disaster	Disaster phenomena and events (regional)	
7	7		Rainfall pattern	22.
8	8		Disaster Management Cycle	N.
10	10	II:	Causes and Consequences of Earthquakes	
11	11	Introductio	Causes and Consequences Volcanic Eruption	
12	12	n to	Causes and Consequences of Landslides	
13	13	Geological	Causes and Consequences of Tsunamis	-
14	14	Hazards	Causes and Consequences of Mine fire	
15	15	and	7	
16	16	Disasters	Review of topics	
17	17			
18	18			

*Other Units of this course will be covered by other faculties of the Department.

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Department: Earth Science

Name of the faculty: Dr Lalit Saikia

Program: MSc Environmental Science

Course: Research Methodology

Semester: III

Course code: MEV 301

Total Lecture in a Week = 1

 $Total\ week = 10$

Total Lecture = 10

Sl. No.	Day	Unit No.	Topic	Remarks*
1	1		n N	
		IV:	Introduction to research problem;	1
2	2		Survey of literature	
3	3	Resea	Project formulation	
4	4	rch	Structural elements of scientific report	
5	5	proces	Moral and ethical issues of research	
6	6	S	Plagiarism	
7	7		Paraphrasing	
8	8		Copyright violation	
9	9		Importance of revisions; guidelines on punctuation, using quotations, footnotes	
10	10		References and bibliography	

^{*}Other units of this course will be covered by other faculties of the Department

PRIOUR B

Department: Earth Science

Name of the faculty: Dr Lalit Saikia

Program: MSc Environmental Science

Course: Climate Change and Environmental Management

Semester: III

Course code: MEV 302

Total Lecture in a Week = 2

 $Total\ week = 10$

Total Lecture = 20

Sl No	Day	Unit No	Topic	Remarks*
1	1	I:	Climate change, global warming and greenhouse effect	
2	2		Indicators of climate change	
3	3	Introduction	Greenhouse gases in the atmosphere	
4	4	to Climate	Sources, levels and mechanisms of action	
5	5	Change	Climate change effects on forests, agroecosystems	
6	6		Climate change effects on freshwater and marine ecosystems	******
7	7		Rainfall pattern	
8	8		Socio-economic consequences of climate change	
9	9		Public health consequences of climate change	
10	10	и:	Carbon storage and sequestration	
11	11		Sequestration of forest, ecosystems and wetlands	-
12	12	Climate change	Intergovernmental panel for climate change (IPCC) and its role	
13	13	Mitigation and Global	United Nations framework convention on climate change (UNFCCC)	
14	14	response	CDM and Kyoto Protocol	
15	15		REDD+; The Copenhagen Accord	
16	16		India's response to climate change	
17	17		Projected impact of climate change in India	
18	18		National Action Plan on climate change	
19	19		Role of India and Northeast India in response of climate change	
20	20		Review of topics	

*Other Units of this course will be covered by other faculties of the Department.

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Program: M.Sc. in Environmental Science

Semester: Third

Name of Course: Wildlife Ecology: Wildlife Habitat

Course Code: MEV 304 (A)

and Population
Name of the Teacher: Dr. Anindita Bhattacharya

SI. No	D	77 1/57		ON PLAN
1	Day	Unit No.	Unit Title	Topic
	1			Wildlife-definitions
3	2			Characteristic of terrestrial ecosystem
4	3			Composition and distribution of terrestrial ecosystem
5	4			Characteristic of grassland ecosystem
6	5	UNIT-I		Composition and distribution of grassland ecosystem
7	6		Introduction	Characteristic of forest ecosystems
8	7		to wildlife	Composition and distribution of forest ecosystems
9	8		habitat-I	Grassland ecosystem NE India as wildlife habitat
10	9			Forest ecosystem NE India as wildlife habitat
11	10			Wetlands of India as wildlife habitat
	11			Wetlands of NE India as wildlife habitat
12	12			Wildlife zones in India-i
13	13			Wildlife zones in India-ii
14	14			Wildlife census-i
15	15]		Wildlife census-ii
16	16			Population survey-i
17	17			Population survey-ii
18	18			Wildlife corridors-i
19	19			Wildlife corridors-ii
20	20			Human dimensions in wildlife habitat-i
21	21			Human dimensions in wildlife habitat-i
22	22			Human-animal conflict-i
23	23			Human-animal conflict-ii
24	24		Wildlife	Human-animal conflictissues
25	25	UNIT-IV	census and	
26	26		conflict issues	Human-animal conflictcases
20	20			Human-animal conflict-factors leading to human
27	27			wildlife conflicts
-1	21			Case studies of some important wildlife of India wit
28	28		4	special reference to India-i
20	20			Case studies of some important wildlife of India with
29	29			special reference to India-ii
	27		15	Case studies of some important wildlife of India with
30	30			special reference to N.E. India-i
50	υO			Case studies of some important wildlife of India with
				special reference to N.E. India-ii



Program; M.Sc.in Environmental Science

Nameof Course: EnvironmentalPollution

Nameof the Teacher: Dr. Anindita Bhattacharya

Semester:First

Course Code: MEV-103

				SSON PLAN
Sl. No	Day	Unit No.	UnitTitle	Topic
1	1	UNIT-I		Pollution-Definition, typesand sourcesofpollution
2	2			Primaryand secondarypollutants
3	3			Determinantsofairpollutants
4	4			Transports and diffusionofpollutants ofpollutants
5	5			Criteriaairpollutants
6	6			Methodsofmonitoring
7	7			Controlofairpollution-1 st part
8	8			Controlofairpollution-2 nd part
9	9			O3layerdepletion-backgroundandorigin and impact
10	10			Acidrain-background andorigin
11	11		AirPollution	Acidrain-Impact
12	12			Effectsof pollutantson humanbeings
13	13			Effectsofpollutantsonplants and animals
14	14			Effectsofpollutantsonmaterials
15	15			Effectsofpollutantsonclimate
16	16			Airqualitystandards
17	17			Trans-boundaryairpollution
18	18			Implicationofairpollutants
19	19			Simpleairpollutionmodels
20	20			Festivalsandairpollution
1	21			Waterpollution-definition and types
2	22			Waterpollution-sources and effectsonenvironmer
3	23			waterqualitystandards
4	24			Eutrophication
5	25			Wastewatertreatment
6	26			Wastewaterrecycling
7	27			Oilpollution-definition, sources, types and impact
8	28			Marinepollution:Definitionandsources
9	29			Marinepollution:types

Department: Earth Science

Name of the faculty: Dr Lalit Saikia

Program: MSc Environmental Science

Course: Research Methodology

Semester: III

Course code: MEV 301

Total Lecture in a Week = 1

Total week = 10

Total Lecture = 10

Sl. No.	Day	Unit No.	Topic	Remarks*
1	1			
		IV:	Introduction to research problem;	
2	2		Survey of literature	
3	3	Resea	Project formulation	T
4	4	rch	Structural elements of scientific report	
5	5	proces	Moral and ethical issues of research	
6	6	S	Plagiarism	
7	7		Paraphrasing	
8	8		Copyright violation	
9	9		Importance of revisions; guidelines on punctuation, using quotations, footnotes	
10	10		References and bibliography	

^{*}Other units of this course will be covered by other faculties of the Department

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Department: Earth Science

Name of the faculty: Dr Lalit Saikia

Program: MSc Environmental Science

Course: Climate Change and Environmental Management

Semester: III

Course code: MEV 302

Total Lecture in a Week = 2

 $Total\ week = 10$

Total Lecture = 20

Sl No	Day	Unit No	Topic	Remarks*
1	1	I:	Climate change, global warming and greenhouse effect	
2	2		Indicators of climate change	
3	3	Introduction	Greenhouse gases in the atmosphere	
4	4	to Climate	Sources, levels and mechanisms of action	
5	5	Change	Climate change effects on forests, agroecosystems	
6	6		Climate change effects on freshwater and marine ecosystems	The state of the s
7	7		Rainfall pattern	
8	8		Socio-economic consequences of climate change	
9	9		Public health consequences of climate change	
10	10	II:	Carbon storage and sequestration	
11	11		Sequestration of forest, ecosystems and wetlands	
12	12	Climate change	Intergovernmental panel for climate change (IPCC) and its role	
13	13	Mitigation and Global	United Nations framework convention on climate change (UNFCCC)	
14	14	response	CDM and Kyoto Protocol	
15	15		REDD+; The Copenhagen Accord	
16	16		India's response to climate change	
17	17		Projected impact of climate change in India	
18	18		National Action Plan on climate change	
19	19		Role of India and Northeast India in response of climate change	N.
20	20		Review of topics	

*Other Units of this course will be covered by other faculties of the Department.

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Department: Earth Science

Name of the faculty: Dr Lalit Saikia

Program: MSc Environmental Science & MA/MSc Geography

Course: Hazards and Disaster Management: Basic Concepts

Semester: III

Course code: MEV 304 B

SI No	Day	Unit No	Topic	Remarks*	
1	1	I:	Definitions and concepts of Hazard, Risk, Vulnerability, Capacity and Disaster		
2	2		Types, causes and effects of Hazards		
3	3	Understand	Difference between Hazard and Disaster, Different stages involved in Disaster		
4	4	ing Hazard	Disaster phenomena and events (Global)		
5	5	and Disaster	Disaster phenomena and events (national)		
6	6	Disaster	Disaster phenomena and events (regional)		
7	7		Rainfall pattern		
8	8		Disaster Management Cycle		
10	10	II:	Causes and Consequences of Earthquakes		
11	11	Introductio	Causes and Consequences Volcanic Eruption		
12	12	n to	Causes and Consequences of Landslides		
13	13	Geological	Causes and Consequences of Tsunamis		
14	14	Hazards	Causes and Consequences of Mine fire		
15	15	and			
16	16	Disasters	Review of topics		
17	17				
18	18				

*Other Units of this course will be covered by other faculties of the Department.

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Program M.Sc. in Environmental Science Name of Course: Research Methodology

Semester: Third

Course Code: MEV 301

Name of the Teacher: Dr. Anindita Bhattacharva

			LESS	ON PLAN
Sl. No	Day	Unit No.	Unit Title	Topic
1	1			Definitions of research
2	2			Meaning of research
3	3	N.		Characteristics of science and scientific methods
4	4	1		Steps in scientific method
5	5	UNIT-I		Objectives of research
6	6		1.5	Types of research
7	7			Research formulation and Designs: Observation an
8	8		Introduction to Research	Research formulation and Designs: Prediction and Explanation, Induction
9	9			Basic principle of Research design: Meaning, Need
10	10			Research formulation and Designs: features of good design
11	11			Types of Research design.
12	12			Hypothesis: meaning, types
13	13			Hypothesis: formulation of hypothesis
14	14			Hypothesis: importance of hypothesis
15	15			Hypothesis: difficulties in applying hypothesis
16	16			Sampling –Definitions and meanings
17	17			Sampling - types
18	18			Sampling - procedure
19	19			Sampling - procedure Sampling - selection
20	20			Sampling - merits and demerits,
21	21			Data collection –Definitions of data
22	22			Data collection - sources of data collection
23	23	I ID TION TO	Sampling and	Data collection primary and according
24	24	UNIT-II	Data Collection	Data collection - primary and secondary data
25	25		Conceion	Data collection techniques of data collection-i
26	26			Data collection techniques of data collection-ii
27	27		× 5	Data collection - empirical observation Data collection - interview
28	28	l l		
29	29		1	Data collection - questionnaire Data collection - interview
30	30		(1)	
				Data collection –data collection scheduling and its importance.

Program M.Sc. in Environmental Science

Name of Course: Climate Change and Environmental

Management

Semester: Third

Course Code: MEV 302

Name of the Teacher: Dr. Anindita Bhattacharya

Sl. No	Day	Unit No.	Unit Title	SON PLAN	
1	1		Jane 1 to 10	Concept of environmental management-i	
2	. 2			Concept of environmental management-ii	
3	- 3			Environmental Planning	
4	4			EIA process	
5	5			EIA- Projects screening	
6	6	UNIT-III		EIA- scoping	
7	7			EIA- impactidentification	
8	8			EIA- prediction	
9	9		Introduction to	EIA- Evaluation	
10	10		Environmental	EIA- mitigation and monitoring	
11	11		Management	EIA regulations and notifications in India.	
12	12		J	Environmental Management Plan	
13	13			Environmentalauditing-i	
14	14				Environmentalauditing-ii
15	15			Cost benefit analysis	
16	16			Public participation in environmental decision	
17	1.7				making
17 18	17			ISO certification	
19	18			Ecomark	
- 53	19			Concept of sustainable development-i	
20	20			Concept of sustainable development-ii	
21	21			sustainability	
22	22			Indicators of sustainability	
23	23			Sustainable management of renewable	
				resources: land resource	
24	24			Sustainable management of renewable	
		1		resources: water resource	
5	25		G	Sustainable management of renewable	
		UNIT-IV	Sustainable	resources: forest resource	
6	26		Development		
				Sustainable management of non-renewable resources: mineral resource	
7	27				
				Sustainable management of non-renewable resources: fossil fuels	
8	28				
9	29			Strategies for Sustainable development	
				Environmental priorities in India for	
0	30	1		sustainable development	
	50			Challenges to meet sustainability an	
				sustainable development goals	

30	30		1	Marinepollution:control
31	31			Thermalpollution-definitionandsources
32	32	UNIT-II	WaterP ollution	Thermalpollution-types
33	33		Ondion	Thermalpollution-impact
34	34			Emergingwaterpollutants
35	35			Festivalsandwaterquality.
36	36			Soilpollution-Definition
37	37			Sourcesofsoilpollution
38	38			Soilpollution-types
39	39			Physico-chemicalsamplingof soilquality-1st part
40	40		UNIT- III SoilPollution	Physico-chemicalsamplingof soil quality-2 nd part
41	41			Physico-chemicalanalysisof soilquality
42	42	-		Interactionofwaste effluentswithsoilcomponent,
43	43	UNIT- III		Interactionofheavymetalswith soil component,
44	44			Effectof soilpollution
45	45			Soilpollutioncontrol-physical
46	46			Soilpollutioncontrol-biological
47	47			Pesticidepollution-Definitionandsources
48	48			Pesticidepollution-types and impacts
49	49			Radioactivepollution-definition, source and effect
50	50			Radioactivepollution- effect
51	51			Atmosphericdepositionandsoilhealth
52	52			Interaction of waste effluents and heavy metals with soi component-i
53	53			Interaction of waste effluents and heavy metals with soil
54	54			component-ii Noisepollution-source
55	55			Noisepollution-measurement ofnoise pollution
56	56			Noiseexposurelevels
57	57	UNIT-	NoisePollution	effectofnoisepollution
58	58	IV		Noisecontrol-Mechanical
59	59			Noisecontrol-legal
60	60			Noiseabatementmeasures

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University of Science & Technology Meghalaya

Department	of

Lesson Plan

Session: Odd Semester

ProgramM.A	/M.Sc. in Geography	Semester:III	
Name of the Course Code:	rse::Hazards and Disa: MGE 304B	ster Management: Basic Concepts	
Name of the Fac	ulty:Dr. Eahya Al Hu	ıda	

Details Plan

Unit	Topic	Targeted No. of classes	Tentative Schedule (DoC-DoE)	Tentative Pedagogy	Unit Allotted for Sessional Test	Remarks
UNI	Floods	2		Offline		
T-III	ž:			Off line class	Test-I	Class assignments, mock mcq test, seminars will be incorporated
	Droughts	2		Off line class		in between.
	Snow falls	2		Off line class		
	Cloudburst	2				
		2		Off line class	Test-II	
	Cyclones	2		Off line class		
	Tsunamis	2				
			X 3	Off line class		
gested B						

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- 2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
- 3. Central Water Commission, 1987, Flood Atlas of India, CWC, New Delhi. 4. Central Water Commission, 1989, Manual of Flood Forecasting, New Delhi.
- 5. Government of India, 1997, Vulnerability Atlas of India, New Delhi.
- 6. Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India,

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University of Science & Technology Meghalaya

Department of Earth science

Lesson Plan

Session: Odd Semester

ProgramM.A/M.Sc. in Geography	Semester:III
Name of the Course Research Methodology Paper Code:MGE 301 Name of the Faculty:Dr. Eahya Al Huda	

Details Plan

Unit	Topic	Targeted No. of classes	Tcntative Schedule (DoC-DoE)	Tentative Pedagogy	Unit Allotted for Sessional Test	Remarks
UN'T	Data Processing and Analysis Salient features of processing of qualitative and quantitative data	1		Ofline class	Test-I	Class assignments, mock mcq test, seminars will be incorporated
	Variable construction, tabulation and charting	1		Ofline class		in between.
	Data processing tools - GIS Software packages and their analytical tools	1		Ofline class		
	SPSS and R	1		Ofline class		
	Hypothesis testing and validation with specific examples,	1	a.	Ofline class	Test_II	
	Data interpretation, analysis and conclusions.	1		Ofline class		
- IV:	Research Process Moral and ethical questions in scientific writing	1	E	Ofline class		
	Plagiarism	1		Ofline class		======
	paraphrasing and copyright violation.	1		Ofline class Ofline class		

Importance of revisions and Specific guide lines on	1	Ofline class	
punctuation			
using quotations.	1		
footnotes	1	Ofline class	
	1	Ofline class	1
references and bibliography gested Books:	1	Ofline class	

- Wililam J. Goode and Paul H. Hatt, 1981: Methods In Social Research, Indian Edition, MsGraw
- 2. Sir Claus Moser and GrhamKalton, 1985: Survey Methods in Social Investigation, Dartmouth, New
- Paul Oliver, 2008: Writing Your Thesis, 2nd Edition, Sage, New Delhi
 Bridget Somekh and Cathy Lewin, 2005: Research Methods in the Social Sciences, Vistaar, New
- Kothari C.R., 2004, Research Methodogy Methods and Techniques, New Age International (P) Limited, Publishers, New Delhi.

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