



University of Science & Technology Meghalaya

Department of Earth science

Lesson Plan

Session: Odd Semester

Program ...M.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	Tentative Schedule (DoC-DoE)	Tentative Pedagogy	Unit Allotted for Sessional Test	Remarks
UNIT - III	Data Processing and Analysis	1		Offline class	Test-I	Class assignments, mock mcq test, seminars will be incorporated in between.
	Salient features of processing of qualitative and quantitative data					
	Variable construction, tabulation and charting	1		Offline class		
	Data processing tools - GIS Software packages and their analytical tools	1		Offline class		
	SPSS and R	1		Offline class		
	Hypothesis testing and validation with specific examples,	1		Offline class	Test _II	
	Data interpretation , analysis and conclusions.	1		Offline class		
UNIT - IV:	Research Process	1		Offline class		
	Moral and ethical questions in scientific writing					
	Plagiarism	1		Offline class		
	paraphrasing and copyright violation.	1		Offline class		

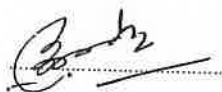
	Importance of revisions and Specific guide lines on punctuation	1		Offline class		
	using quotations.	1		Offline class		
	footnotes	1		Offline class		
	references and bibliography	1		Offline class		

Suggested Books:

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 York:
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 Delhi
5. Kothari C.R., 2004, *Research Methodogy Methods and Techniques*, New Age International (P) Limited, Publishers, New Delhi.



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University of Science & Technology Meghalaya

Department of.....

Lesson Plan

Session: Odd Semester

Program ...M.A/M.Sc. in Geography.....Semester:.....III.....

Name of the Course: Hazards and Disaster Management: Basic Concepts

Course Code:.....MGE 304B

Name of the Faculty:....Dr. Eahya Al Huda

Details Plan

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

Suggested 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, New Delhi.



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Department of Earth Science
University of Science of Technology, Meghalaya

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

Semester: Third
Course Code: MEV 301

Name of the Teacher: Dr. Anindita Bhattacharya

LESSON PLAN

Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-I	Introduction to Research	Definitions of research
2	2			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			Research formulation and Designs: Observation and Facts
8	8			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			UNIT-II
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	Data collection - primary and secondary data		
24	24	Data collection techniques of data collection-i		
25	25	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 - interview		
30	30	Data collection –data collection scheduling and its importance.		

Department of Earth Science
University of Science of Technology, Meghalaya

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

LESSON PLAN				
Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-III	Introduction to Environmental Management	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	7			EIA- impact identification
8	8			EIA- prediction
9	9			EIA- Evaluation
10	10			EIA- mitigation and monitoring
11	11			EIA regulations and notifications in India.
12	12			Environmental Management Plan
13	13			Environmental auditing-i
14	14			Environmental auditing-ii
15	15			Cost benefit analysis
16	16			Public participation in environmental decision making
17	17			ISO certification
18	18			Ecomark
19	19			UNIT-IV
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 resources : water resource		
25	25	Sustainable management of renewable resources : forest resource		
26	26	Sustainable management of non-renewable resources : mineral resource		
27	27	Sustainable management of non-renewable resources : fossil fuels		
28	28	Strategies for Sustainable development		
29	29	Environmental priorities in India for sustainable development		
30	30	Challenges to meet sustainability and sustainable development goals		

Department of Earth Science
University of Science of Technology, Meghalaya

Program: M.Sc. in Environmental Science

Semester: Third

Name of Course: Wildlife Ecology: Wildlife Habitat
and Population

Course Code: MEV 304 (A)

Name of the Teacher: Dr. Anindita Bhattacharya

LESSON PLAN				
Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-I	Introduction to wildlife habitat-I	Wildlife-definitions
2	2			Characteristic of terrestrial ecosystem
3	3			Composition and distribution of terrestrial ecosystem
4	4			Characteristic of grassland ecosystem
5	5			Composition and distribution of grassland ecosystem
6	6			Characteristic of forest ecosystems
7	7			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	UNIT-IV	Wildlife census and conflict issues	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-ii
22	22			Human-animal conflict-i
23	23			Human-animal conflict-ii
24	24			Human-animal conflictissues
25	25			Human-animal conflictcases
26	26			Human-animal conflict-factors leading to human-wildlife conflicts
27	27			Case studies of some important wildlife of India with 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			Case studies of some important wildlife of India with special reference to N.E. India-ii

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Department of Earth Science
University of Science of Technology, Meghalaya

Program: M.Sc. in Environmental Science

Name of Course: Environmental Pollution

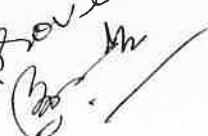
Name of the Teacher: Dr. Anindita Bhattacharya


Semester: First

Course Code: MEV-103

LESSON PLAN				
Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-I	Air Pollution	Pollution-Definition , types and sources of pollution
2	2			Primary and secondary pollutants
3	3			Determinants of air pollutants
4	4			Transports and diffusion of pollutants of pollutants
5	5			Criteria air pollutants
6	6			Methods of monitoring
7	7			Control of air pollution-1 st part
8	8			Control of air pollution-2 nd part
9	9			O ₃ layer depletion-background and origin and impact
10	10			Acid rain-background and origin
11	11			Acid rain-Impact
12	12			Effect of pollutants on human beings
13	13			Effect of pollutants on plants and animals
14	14			Effect of pollutants on materials
15	15			Effect of pollutants on climate
16	16			Air quality standards
17	17			Trans-boundary air pollution
18	18			Implication of air pollutants
19	19			Simple air pollution models
20	20			Festivals and air pollution
21	21			Water pollution-definition and types
22	22			Water pollution-sources and effect on environment
23	23			water quality standards
24	24			Eutrophication
25	25			Wastewater treatment
26	26			Wastewater recycling
27	27			Oil pollution-definition, sources, types and impacts
28	28			Marine pollution: Definition and sources
29	29			Marine pollution: types

30	30	UNIT-II	Water Pollution	Marine pollution: control
31	31			Thermal pollution- definition and sources
32	32			Thermal pollution- types
33	33			Thermal pollution- impact
34	34	UNIT-III	Soil Pollution	Emerging water pollutants
35	35			Festivals and water quality.
36	36			Soil pollution- Definition
37	37			Sources of soil pollution
38	38			Soil pollution- types
39	39			Physico-chemical sampling of soil quality- 1 st part
40	40			Physico-chemical sampling of soil quality- 2 nd part
41	41			Physico-chemical analysis of soil quality
42	42			Interaction of waste effluents with soil component,
43	43			Interaction of heavy metals with soil component,
44	44			Effect of soil pollution
45	45			Soil pollution control- physical
46	46			Soil pollution control- biological
47	47			Pesticide pollution- Definition and sources
48	48			Pesticide pollution- types and impacts
49	49			Radioactive pollution- definition, source and effect
50	50			Radioactive pollution- effect
51	51	Atmospheric deposition and soil health		
52	52	Interaction of waste effluents and heavy metals with soil component-i		
53	53	Interaction of waste effluents and heavy metals with soil component-ii		
54	54	UNIT-IV	Noise Pollution	Noise pollution- source
55	55			Noise pollution- measurement of noise pollution
56	56			Noise exposure levels
57	57			effect of noise pollution
58	58			Noise control- Mechanical
59	59			Noise control- legal
60	60			Noise abatement measures

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University of Science & Technology, Meghalaya
Lesson Plan for the Session September-December, 2021

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	Topic	Remarks*
1	1	I: Understand ing Hazard and Disaster	Definitions and concepts of Hazard, Risk, Vulnerability, Capacity and Disaster	
2	2		Types, causes and effects of Hazards	
3	3		Difference between Hazard and Disaster, Different stages involved in Disaster	
4	4		Disaster phenomena and events (<i>Global</i>)	
5	5		Disaster phenomena and events (<i>national</i>)	
6	6		Disaster phenomena and events (<i>regional</i>)	
7	7		Rainfall pattern	
8	8		Disaster Management Cycle	
10	10	II: Introductio n to Geological Hazards and Disasters	Causes and Consequences of Earthquakes	
11	11		Causes and Consequences Volcanic Eruption	
12	12		Causes and Consequences of Landslides	
13	13		Causes and Consequences of Tsunamis	
14	14		Causes and Consequences of Mine fire	
15	15			
16	16		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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University of Science & Technology, Meghalaya
Lesson Plan for the Session September-December, 2021

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: Research process	Introduction to research problem;	
2	2		Survey of literature	
3	3		Project formulation	
4	4		Structural elements of scientific report	
5	5		Moral and ethical issues of research	
6	6		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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University of Science & Technology, Meghalaya
Lesson Plan for the Session September-December, 2021

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: Introduction to Climate Change	Climate change, global warming and greenhouse effect	
2	2		Indicators of climate change	
3	3		Greenhouse gases in the atmosphere	
4	4		Sources, levels and mechanisms of action	
5	5		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		II: Climate change Mitigation and Global response	Carbon storage and sequestration
11	11	Sequestration of forest, ecosystems and wetlands		
12	12	Intergovernmental panel for climate change (IPCC) and its role		
13	13	United Nations framework convention on climate change (UNFCCC)		
14	14	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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Department of Earth Science
University of Science of Technology, Meghalaya

Program: M.Sc. in Environmental Science

Semester: Third

Name of Course: Wildlife Ecology: Wildlife Habitat
and Population

Course Code: MEV 304 (A)

Name of the Teacher: Dr. Anindita Bhattacharya

LESSON PLAN

Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-I	Introduction to wildlife habitat-I	Wildlife-definitions
2	2			Characteristic of terrestrial ecosystem
3	3			Composition and distribution of terrestrial ecosystem
4	4			Characteristic of grassland ecosystem
5	5			Composition and distribution of grassland ecosystem
6	6			Characteristic of forest ecosystems
7	7			Composition and distribution of forest ecosystems
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14	14	UNIT-IV	Wildlife census and conflict issues	Wildlife census-i
15	15			Wildlife census-ii
16	16			Population survey-i
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Department of Earth Science
University of Science of Technology, Meghalaya

Program: M.Sc. in Environmental Science

Name of Course: Environmental Pollution

Name of the Teacher: Dr. Anindita Bhattacharya

Semester: First

Course Code: MEV-103

LESSON PLAN				
Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-I	Air Pollution	Pollution-Definition, types and sources of pollution
2	2			Primary and secondary pollutants
3	3			Determinants of air pollutants
4	4			Transports and diffusion of pollutants
5	5			Criteria air pollutants
6	6			Methods of monitoring
7	7			Control of air pollution-1 st part
8	8			Control of air pollution-2 nd part
9	9			O ₃ layer depletion-background and origin and impact
10	10			Acid rain-background and origin
11	11			Acid rain-Impact
12	12			Effect of pollutants on human beings
13	13			Effect of pollutants on plants and animals
14	14			Effect of pollutants on materials
15	15			Effect of pollutants on climate
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19	19			Simple air pollution models
20	20			Festivals and air pollution
21	21			Water pollution-definition and types
22	22			Water pollution-sources and effects on environment
23	23			Water quality standards
24	24			Eutrophication
25	25			Wastewater treatment
26	26			Wastewater recycling
27	27			Oil pollution-definition, sources, types and impacts
28	28			Marine pollution: Definition and sources
29	29			Marine pollution: types

University of Science & Technology, Meghalaya
Lesson Plan for the Session September-December, 2021

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: Research process	Introduction to research problem;	
2	2		Survey of literature	
3	3		Project formulation	
4	4		Structural elements of scientific report	
5	5		Moral and ethical issues of research	
6	6		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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University of Science & Technology, Meghalaya
Lesson Plan for the Session September-December, 2021

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: Introduction to Climate Change	Climate change, global warming and greenhouse effect	
2	2		Indicators of climate change	
3	3		Greenhouse gases in the atmosphere	
4	4		Sources, levels and mechanisms of action	
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8	8		Socio-economic consequences of climate change	
9	9		Public health consequences of climate change	
10	10		II: Climate change Mitigation and Global response	Carbon storage and sequestration
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14	14	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		

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University of Science & Technology, Meghalaya
Lesson Plan for the Session September-December, 2021

Department: Earth Science

Name of the faculty: Dr Lalit Saikia

~~Program: MSe 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	Topic	Remarks*
1	1	I: Understand ing Hazard and Disaster	Definitions and concepts of Hazard, Risk, Vulnerability, Capacity and Disaster	
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12	12		Causes and Consequences of Landslides	
13	13		Causes and Consequences of Tsunamis	
14	14		Causes and Consequences of Mine fire	
15	15			
16	16		Review of topics	
17	17			
18	18			

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

Dr Lalit Saikia
Dr Lalit Saikia

Dr Lalit Saikia

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Department of Earth Science
University of Science of Technology, Meghalaya

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

Semester: Third
Course Code: MEV 301

Name of the Teacher: Dr. Anindita Bhattacharya

LESSON PLAN

Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-I	Introduction to Research	Definitions of research
2	2			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			Research formulation and Designs: Observation and Facts
8	8			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
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17	17	Sampling - types		
18	18	Sampling - procedure		
19	19	Sampling - selection		
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25	25	Data collection techniques of data collection-ii		
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27	27	Data collection - interview		
28	28	Data collection - questionnaire		
29	29	Data collection - interview		
30	30	Data collection –data collection scheduling and its importance.		

Department of Earth Science
University of Science of Technology, Meghalaya

Program M.Sc. in Environmental Science

Semester: Third

Name of Course: Climate Change and Environmental Management


Course Code: MEV 302

Name of the Teacher: Dr. Anindita Bhattacharya

LESSON PLAN				
Sl. No	Day	Unit No.	Unit Title	Topic
1	1	UNIT-III	Introduction to Environmental Management	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	7			EIA- impact identification
8	8			EIA- prediction
9	9			EIA- Evaluation
10	10			EIA- mitigation and monitoring
11	11			EIA regulations and notifications in India.
12	12			Environmental Management Plan
13	13			Environmental auditing-i
14	14			Environmental auditing-ii
15	15			Cost benefit analysis
16	16			Public participation in environmental decision making
17	17	UNIT-IV	Sustainable Development	ISO certification
18	18			Ecomark
19	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 resources : water resource
25	25			Sustainable management of renewable resources : forest resource
26	26			Sustainable management of non-renewable resources : mineral resource
27	27			Sustainable management of non-renewable resources : fossil fuels
28	28			Strategies for Sustainable development
29	29			Environmental priorities in India for sustainable development
30	30			Challenges to meet sustainability and sustainable development goals

30	30	UNIT-II	Water Pollution	Marine pollution: control
31	31			Thermal pollution- definition and sources
32	32			Thermal pollution- types
33	33			Thermal pollution- impact
34	34	UNIT-III	Soil Pollution	Emerging water pollutants
35	35			Festivals and water quality.
36	36			Soil pollution- Definition
37	37			Sources of soil pollution
38	38			Soil pollution- types
39	39			Physico-chemical sampling of soil quality- 1 st part
40	40			Physico-chemical sampling of soil quality- 2 nd part
41	41			Physico-chemical analysis of soil quality
42	42			Interaction of waste effluents with soil component,
43	43			Interaction of heavy metals with soil component,
44	44			Effect of soil pollution
45	45			Soil pollution control- physical
46	46			Soil pollution control- biological
47	47			Pesticide pollution- Definition and sources
48	48			Pesticide pollution- types and impacts
49	49			Radioactive pollution- definition, source and effect
50	50			Radioactive pollution- effect
51	51	Atmospheric deposition and soil health		
52	52	Interaction of waste effluents and heavy metals with soil component-i		
53	53	Interaction of waste effluents and heavy metals with soil component-ii		
54	54	UNIT-IV	Noise Pollution	Noise pollution- source
55	55			Noise pollution- measurement of noise pollution
56	56			Noise exposure levels
57	57			effect of noise pollution
58	58			Noise control- Mechanical
59	59			Noise control- legal
60	60			Noise abatement measures

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University of Science & Technology Meghalaya

Department of.....

Lesson Plan

Session: Odd Semester

Program ...M.A/M.Sc. in Geography.....Semester:.....III.....

Name of the Course::Hazards and Disaster Management: Basic Concepts

Course Code:.....MGE 304B

Name of the Faculty:...Dr. Eahya Al Huda

Details Plan

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

Suggested 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, New Delhi.



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University of Science & Technology Meghalaya

Department of Earth science

Lesson Plan

Session: Odd Semester

Program ...M.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	Tentative Schedule (DoC-DoE)	Tentative Pedagogy	Unit Allotted for Sessional Test	Remarks
UNIT - III	Data Processing and Analysis	1		Offline class	Test-I	Class assignments, mock mcq test, seminars will be incorporated in between.
	Salient features of processing of qualitative and quantitative data					
	Variable construction, tabulation and charting	1		Offline class		
	Data processing tools - GIS Software packages and their analytical tools	1		Offline class		
	SPSS and R	1		Offline class		
	Hypothesis testing and validation with specific examples,	1		Offline class	Test _II	
	Data interpretation , analysis and conclusions.	1		Offline class		
UNIT - IV:	Research Process	1		Offline class		
	Moral and ethical questions in scientific writing					
	Plagiarism	1		Offline class		
	paraphrasing and copyright violation.	1		Offline class		
				Offline class		

Importance of revisions and Specific guide lines on punctuation	1		Offline class		
using quotations.	1		Offline class		
footnotes	1		Offline class		
references and bibliography	1		Offline class		

Suggested Books:

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 York:
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 Delhi
5. Kothari C.R., 2004, *Research Methodogy Methods and Techniques*, New Age International (P) Limited, Publishers, New Delhi.



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