

SYLLABUS

For

**BACHELOR OF DISASTER MANAGEMENT (HONOURS)
FOUR YEAR (8 SEMESTERS)**

SESSIONS: 2012 – 2013, 2013 – 2014, and 2014 - 15



**INSTITUTE OF DISASTER MANAGEMENT AND VULNERABILITY STUDIES
UNIVERSITY OF DHAKA
DHAKA-1000, BANGLADESH**

INSTITUTE OF DISASTER MANAGEMENT AND VULNERABILITY STUDIES
UNIVERSITY OF DHAKA, DHAKA-1000.

BACHELOR OF DISASTER MANAGEMENT (BDM)

Courses leading to the Degree of Bachelor of Disaster Management (Honors) will extend over four academic years and will be divided into 8 semesters conforming to the University Rules and Regulations. The course of study shall be an integrated of carrying a total of 137 Credits (Marks-3850). All the courses are compulsory for each student.

The Bachelor of Disaster Management (BDM) shall be four years duration and divided into 8 (eight) semesters. Each semester shall be 19 weeks, of which

- 15 (fifteen) weeks for class teaching
- 1 (one) week break for preparation, and
- 3 (three) weeks for holding the semester final examinations

❖ **Evaluation and Grading**

Evaluation and grading will be determined on the basis of an overall evaluation of student's performance in mid-semester examination, semester final examination, term paper(s)/home assignment(s), class attendance and active participation in the discussion class/tutorial class/group presentation/class test.

- Marks of each theoretical course will be divided as follows:

The distribution of marks for evaluation will be as under:

Class attendance	5%
Active participation in the discussion class/tutorial class/group presentation/class test	10%
Mid-semester examination (duration of 75 minutes)	20%
Term paper(s)/home assignment(s) and presentation	15%
Semester final examination (duration of 3 hours)	50%
Total	100%

- Number of each theoretical course related to practical will be divided as follows:

Sessional (25%)	
Class attendance	5%
Active participation in the discussion class/tutorial class/group presentation/class test	10%
Mid-semester examination (duration of 50 minutes)	10%
Practical (25%)	
Class attendance	5%
Practical work/Field Work	20%
Semester final examination (duration of 3 hours)	50%
Total	100%

❖ **Marking of Class Attendance shall be computed in the following manners**

Attendance range (in percent)	Marks
90% and above	5.0
85% to less than 90%	4.5
80% to less than 85%	4.0
75% to less than 80%	3.5
70% to less than 75%	3.0
65% to less than 70%	2.5
60% to less than 65%	2.0
55% to less than 60%	1.5
50% to less than 55%	1.0
45% to less than 50%	0.5
Less than 45%	0.0

❖ **Grading Structure in a 4 – point Grading Scale:**

For each course, the average marks awarded by the semester final examiners, and the marks awarded by the course teacher for the mid-term examination, term paper(s)/home assignment(s), class attendance, practical work or field work and active participation in the discussion class/tutorial class group presentation/class test will be totaled and converted into letter-grades following a 4 – point grading scale presented below:

Mark Range (in percent)	Letter - Grade	Explanation	Grade Point
80% and above	A+	Excellent	4.00
75% to less than 80%	A		3.75
70% to less than 75%	A-		3.50
65% to less than 70%	B+	Very Good	3.25
60 to less than 65%	B		3.00
55% to less than 60%	B-		2.75
50% to less than 55%	C+	Good	2.50
45% to less than 50%	C		2.25
40% to less than 45%	D	Passing	2.00
Less than 40%	F	Failing	00
-----	I		Incomplete
-----	F		Withdrawn

❖ **Interpretation of the Grades:**

- ‘A+’, ‘A’ and ‘A-’ grades are indicative of ‘excellent’ performance overall by a student, earning grade points of 4.0, 3.75, and 3.50, respectively.
- ‘B+’, ‘B’ and ‘B-’ grades are indicative of ‘very good’ performance overall by a student, earning grade points of 3.25, 3.00 and 2.75, respectively.
- ‘C+’ and ‘C’ grades are indicative of ‘satisfactory’ performance overall by a student, earning grade points of 2.50, and 2.75, respectively.
- D’ grade is indicative of minimally acceptable ‘passing’ performance overall by a student, earning a grade point of 2.00.

- 'F' grade is indicative of an unacceptable 'failing' performance overall by a student, i.e., fail to earn any credit point.
- 'I' grade is indicative of a situation where a student, for non-academic reasons beyond his control, is unable to complete the full requirements of the course for not being able to sit for the semester final examination. With the submission of valid and authenticated evidence of such reason(s), and the recommendation of the course teacher (to be reported to the Chairperson of the Examination Committee), that particular student will be allowed to complete the semester final examination with the next batch. Meanwhile, the student concerned will be promoted to the next semester. If an 'Incomplete' grade is not cleared with the next batch, the 'I' grade will automatically be changed to an 'F' grade. A maximum of two 'I' grades will be allowed to a student in one semester.
- 'W' grade will be awarded when a student is permitted to withdraw/drop a course/semester without penalty. Withdraws without penalties are not permitted after the mid-semester examination. A student may take readmission in the semester concerned with the next batch by paying the fees for the whole year.

❖ **Class Attendance**

The course teacher shall maintain the Class Attendance Register and submit it to the Director at the end of class. A student shall have to attend 75 per cent of the classes held in a course to be eligible to sit for the Semester Final Examination. However, students with attendance of 60 per cent to 74 per cent will be treated as non-collegiate, and below 60 per cent as non-collegiate students. The Director of the Centre shall monitor of classes being held and attendance of students.

❖ **Promotion**

- For promotion from one semester to the next, a student will require to earn a minimum SGPA (Semester Grade Point Average) of 2.0.
- For promotion from the second through the final semester, a student shall require to earn a minimum CGPA of 2.25, taking into consideration all the grade points earned in total number of courses of first through the final semester and improved grade, if any.
- A student failing to clear up the university dues of the year of study shall not be promoted to the next year class.

❖ **Improvement.**

1. A student carrying F-grade in any course shall not be awarded the degree unless he/she improves it by appearing at the Semester Final Examination with the next batch. If the student gets F in the improvement examination, he/she will be automatically dropped from the semester student will have to take readmission with the next batch, provided the student concerned is eligible for readmission.
2. For improvement of grade in a course the student shall apply to the Director of the Institute at least 4 (four) weeks before the start of the Semester Final Examination.
3. If a student obtains a grade lower than 'B-' in a course, he/she will be allowed to repeat the term-final examination only once with the next batch for the purpose of grade improvement by forgoing his/her earlier term-final marks.

4. If a student obtains 'B-' or better grade in any course, he/she will not be allowed to repeat the course for the purpose of grade improvement.
5. Students earning C or D grade may also choose to improve the grade.
6. A student shall be allowed to improve the grade of a course only once.
7. A student earning F in more than two courses will be automatically dropped from the programme.
8. No improvement shall be allowed for the Mid-Semester Examination, term paper/ home assignment and active participation in the discussion class/tutorial/group presentation/class test marks and the grades earned in written and oral comprehensive examinations, as well as in course (s) in which a student did not attend classes or appear in the Semester Final Examination.
9. Absence in any course final examination will not be regarded as earned grade. A student must appear in the course final examination to have the eligibility for improvement
10. Improvement shall not be allowed once the degree is awarded.

❖ **Readmission:**

- A student failing to get the requisite grade points for promotion (clause 3.5) from one semester to the next may seek readmission with the following batch.
- For, readmission, a student will have to apply within one month after the announcement of result of the concerned semester.
- On readmission, grades earned earlier by a student in the class or readmission will cease to exist and the student will have to retake all the course works and examinations.
- A student will not be allowed readmission in more than two semesters during the entire Bachelor (Honors) degree programme.

❖ **Drop Out:**

A student failing to earn the GPA for promotion from one semester to the next after taking readmission in any semester will be dropped out of the program. A student earning 'F' grade in any course after taking improvement examinations or readmission in any semester class will be dropped out of the program.

❖ **Adopting of Unfair Means:**

If any student adopts unfair means in any examination or home assignment, the teacher/invigilator will report in writing to the Chairman of the Examination Committee/Chief Invigilator for onward transmission to the Disciplinary Board of the University for action as per University Rules.

CURRICULUM PLAN

Semester wise courses and distribution of Marks and Credits are as follows:

First Year

First Semester

Course Code	Course Title	Marks	Credits
DMC -101	Introduction to Disasters	100	4
DMC-102	Fundamentals of Sociology	100	4
DMC-103	Principles of Management	100	4
DMC-104	Geography and Environment	100	4
	Total	400	16

First Year

Second Semester

Course Code	Course Title	Marks	Credits
DMC 105	Principles of Disaster Management	100	4
DMC-106	Remedial English	100	4
DMC-107	Economics	100	4
DMC-108	Bangladesh Studies	100	4
	Viva-Voce	50	2
	Total	450	18

Second Year

First Semester

Course Code	Course Title	Marks	Credit
DMC-201	Disaster and Emergency Response Management: Principles and Practice	100	4
DMC-202	Principals of Accounting	100	4
DMC-203	Contemporary Issues in Disaster Management	100	4
DMC-204	Principle of Human Communication	100	4
	Total	400	16

Second Year

Second Semester

Course Code	Course Title	Marks	Credit
DMC-205	Introduction to Statistics	100	3
DMC-206	Disaster Preparedness and Vulnerability Reduction	100	3
DMC-207	Early Warning, Forecasting and Disaster Management	100	3
DMC-208	Informatics for Disaster Management	100	3+1
DMC-209	Disaster, Health and Emergency Management	100	3
	Viva voce	50	2
	Total	550	18

Third Year**First Semester**

Course code	Course Title	Marks	Credit
DMC-301	Theoretical Approaches to Disaster Management	100	3
DMC-302	Geographic Information System (GIS)	100	3+1
DMC-303	Disaster, Media and Risk Communication	100	3
DMC-304	Global Protocols on Disaster Issues	100	3
DMC-305	Disaster Insurance	100	3
	Total	500	16

Third Year**Second Semester**

Course Code	Course Title	Marks	Credit
DMC-306	Gender and Disaster Risk Reduction	100	3
DMC-307	Community Based Approaches to Disaster Management	100	3
DMC-308	Disaster Risk Reduction: Principles and Practices	100	3
DMC-309	Tools and Techniques of Disaster Management	100	3+1
DMC-310	Human Resource Development in Disaster Management	100	3
	Viva voce	50	2
	Total	550	18

Fourth Year**First Semester**

Course Code	Course Title	Marks	Credit
DMC-401	Disaster Management in Bangladesh	100	3
DMC-402	Project Management	100	3
DMC-403	Incident Command System(ICS) Management	100	3
DMC-404	Earthquake Preparedness and Vulnerability Reduction	100	3
DMC-405	Research Methodology	100	3
	Total	500	15

Fourth Year**Second Semester**

Course Code	Course Title	Marks	Credits
DMC-406	Disaster, Governance and Transparency	100	4
DMC-407	Child protection in Emergencies	100	4
DMC-412	Internship	100	4
Optional Courses (One from following courses to be taught)			
DMC-408	Disaster and Climate Resilience, Occupational Health and Safety	100	4
DMC-409	Climate Change: Mitigation and Adaptation	100	4
DMC-410	Psychology of Disaster Management	100	4
DMC-411	Corporate Social Responsibility	100	4
	Comprehensive and Viva voce	100	4
	Total	500	20

DETAILS OUTLINE OF THE SYLLABUS

FIRST YEAR

FIRST SEMESTER

Course Code	Course Title	Marks	Credits
DMC -101	Introduction to Disasters	100	4
DMC-102	Fundamentals of Sociology	100	4
DMC-103	Principles of Management	100	4
DMC-104	Geography and Environment	100	4
	Total	400	16

DMC- 101: Introduction to Disasters

1. Importance understanding risk and disaster, economic importance, risk and life, vulnerability and risk. Differences between ‘hazards & disaster’ and ‘vulnerability & risk’, geographical context and Geophysical situation of Bangladesh.
2. **Hazards:** Basic concepts on hazards, Classification of hazards, Nature, causes, energy sources, and effects of different types of hazards and their potential impacts. Some common hazards in Bangladesh-social, natural, political, biological and human induced etc.
3. **Vulnerability:** Vulnerability, progression of vulnerability, Classification of vulnerability. Nature, causes, and effects of different types of vulnerability and their potential impacts. Some common vulnerability in Bangladesh. Vulnerable areas, vulnerability index, different vulnerable groups and their livelihoods (people of Sunamgonj haor area, rakhain, garo people etc.).
4. **Risk:** Concepts of risk, different perception of risk, different sectoral risks, Describing and differentiating the risks; Risk factors. Disaster Risk Assessment, Risk Treatment and Analysis, Risk Reduction, Risk Planning, Risk Preparedness, Preliminary knowledge on natural disaster risk-based zoning; Risk zone mapping.
5. **Disaster:** Disaster, Classification of disasters. Nature, causes, and effects of different types of natural disaster and their potential impacts (earthquake, floods, cyclone, landslide, and tornado). Some common disasters in Bangladesh and their impacts on social, natural, political, biological etc. Case study (Bangladesh aspects).
6. Disaster management: Disaster Management, Community Alert, Warning, Recovery, Restoration and Reconstruction, Mitigation, Adaptation, Rehabilitation, Response and Emergency Response Management, Disaster Information Management, Disaster Ethics
7. Disaster Management Standards, International Law, Refugee Law, International Humanitarian Law, International Human Rights law, Professional Status, Standards and Disaster Management Ethics.

References

Bryant, E., “Natural Hazards”, Cambridge University Press, Cambridge, UK, 2005.
(NH) Roxanna McDonald. Introduction to Natural and Manmade Disasters and their effects on Building. Elsevier B.V. Publications Ltd.

Development in Bangladesh, Vol. 2. Dhaka, UPL.

Encyclopedia of Biological Disaster Management, Vol-2

Gupta, H.K. 2004. Disaster Management. University Press, India. Roy, P.K. 2006. Disaster Preparedness against accidents. New Age International (P) Ltd, New Delhi.

Hall, G. and Snedden, R. (1996) Natural Disasters: Fact finders. Bristol, Parragon.

Iyengar, R.N. (1997). Natural Hazards in the Urban Habitat. Tata McGraw-Hall Publishing Company Ltd, New Delhi.

Nizamuddin, K. (ed) (2001) Disaster in Bangladesh. Dhaka, DRTMC.

Pramanik, M.A.H. (1994). Natural Disasters. Rahman, A.A. et al (eds) Environment and Development in Bangladesh, Vol. 1. Dhaka, UPL.

Sahini, P. (2003). Disaster Risk Reduction in South Asia. Prentice-Hall of India Private Limited. Sieglein (2002). Security Planning and Disaster Recovery. Tata McGraw-Hall Publishing Company Ltd,

Srivastava (2007). Earthquakes Geography and Management. New Age International (P) Ltd, New Delhi.

Withers, J. (1988) Major Industrial Hazards: The Appraisal and Control. Aldershot (UK), Gower Technical Press

DMC-102: Fundamentals of Sociology

1. Introducing to Sociology: Definition and Subject matter of Sociology, importance of Sociology and its relationship with other disciplines. Origin and development of Sociology.
2. The Sociological Perspectives
 - a. Development of Sociological Thinking: August Comte (1798-1857), Karl Marx (1818-1883), Max Weber (1864)
 - b. The sociological perspective: Functionalism, Conflict Perspective, Symbolic Interactionism, Feminist Perspective.
3. Certain primary concept-Society, Community, Association, Institution and Group. Factors of social life-Geography, Heredity cultural factor, Culture: Definition: Civilization and Culture, Cultural Diffusion, Cultural lag.
4. Social structure and stratification: Elements of social structure class, Social stratification: Historical forms of social stratification.
5. Major Institution: Family and marriage: Forms & Functions, Economic Institutions: Property and inheritance, Property under capitalism and socialism. Political Institutions: State as a social institution, Power, Authority, Types of authority.
6. Social changes: Changes Evaluation and Progress, Theories of social changes
7. Crime and social control: Definition and nature of crime and social control Agencies of social control-Religion, Art, Mythology, Public opinion Taboo, Law-sate-Government Education.

References

Giddens, Anthony (2009) Sociology. (London: The Polity Press) 6th Edition.

Schaefer, R. T. (2001) Sociology, McGraw Hill

Worseley, P. (1992) The New Introducing Sociology, Penguin.

DMC-103: Principles of Management

Objectives:

Management Principles and Practices is designed to give you a basic understanding of the role and functions of a manager and to explain the principles, concepts, and techniques used by managers in carrying out their work. The course is intended for persons who presently hold, or desire in the future to hold, management responsibilities in an organization or enterprise. The objective of this course is to expose students to the theories of management, organizational theory, and the practice of management in contemporary organizations from a conceptual, analytical, and pragmatic perspective. The course is a study of how to be better managers and aims at developing skills and knowledge needed to successfully manage an organization.

Course Contents:

1. Introduction of Management

- a. Innovative Management for Turbulent Time: Definition of management, management functions, organizational performance, management skills, management types, roles and activities of a manager, management and the new workplace.
- b. The Evolution of Management Thinking: Historical forces shaping management, classical perspective, humanistic perspective, management science perspective, contemporary extensions, and recent historical trends in management.
- c. Environmental Constraints on Managers

2. Leadership

- a. Leadership
- b. Managing Work Teams
- c. Communication Skills: Fundamentals influencing communication, Managerial Decision-making
- d. Leadership and organizational behavior: Study of interpersonal relationship and Organizational Behavior as they apply to emergency/disaster administration and operations: Leadership, Conflict management

3. Planning and Organizing

- a. Managerial Planning and Goal Setting, Types of Planning, The role of objectives in Planning,
- b. Commitment to the Planning Process: Pre-Disaster Management activities including: Hazard and vulnerability analysis, capability assessment, emergency / contingency planning and post-disaster management activities;

- c. Organizational Planning: Organizing: Organizational structure and design, Authority, Delegation and Decentralization issues related to organizations engaged in Disaster Management activities.
- d. Strategic Management: SWOT, Three types of forecasts, Strategy Formulation and Implementation, the steps in strategic management

4. Corporate social responsibility

- a. Arguments for and against corporate social responsibility
- b. Cultural and social changes influencing management decisions
- c. Ethical behavior in management
- d. How managers can become more responsive to social issues

5. Managers and Human Resource Management; Strategic Human Resource Planning

6. Controlling: What is Control and Why Engage In It?

- a. Measuring, Monitoring, and Modifying
- b. Control systems, Budgetary control measures related to Disaster Management activities

7. Creativity, Change, and Innovation

- a. Creativity and the Competitive Advantage
- b. Creativity and Innovation
- c. Managing Change and Innovation
- d. The communication process

8. Understanding the communication process

- a. Computer networks, videoconferences, and telecommuting as organizational communication

References

Daft, Richard L. *Management*. The Dryder Press. U. S. A. 9th Edition

James A.f. Stoner, R. Edward Freeman and Daniel. R. Gilbert, Jr. (1995) *Management*, 6th edition, Prentice Hall, Inc.

John r. Schermer horn, James G.ttant, Richard N. Osborn (2001) *Organizational Behavior*, 7th edition John Wiley & Sons.

Robbins, S. (2008) *Fundamentals of Management*. 5th Canadian ed. Toronto: Pearson Education Canada, Type: Textbook with CD Rom. ISBN:978-0-13-198879-8

Kreitner, R. (2004). *Management* (9th ed.). Boston, MA: Houghton Mifflin.

Simon Lilley, Liz Fulop and Stephen Linstead (2004) *Management and Organization*, Palgrave Mc Millan.

Stephen P. Robbins. David A. Decenzo (2001) *Fundamentals of Management*, 3rd edition, Pearson Education (Singapore) Pte. ltd.

DMC-104: Geography and Environment

1. Geography:
 - a. Definition and its changing nature
 - b. Development of Geography
 - c. Nature of Geography: Geography as a dynamic academic discipline
 - d. Geography as an applied science.
2. Concepts in Geography:
 - a. Location, Distribution and Agglomeration
 - b. Process, Pattern and interaction
 - c. Place, space, time
 - d. Shape, size distance
 - e. Region and Regionalization
3. Scope and methodological development/Subject matters; Relation of geography with other disciplines
4. Major approaches to the study of geography
 - a. Landscape Approach
 - b. Ecology and Ecological Approach
 - c. Region and Regional Approach
 - d. Behaviourial Approach
5. Geographical data: Classification, Properties and levels of measurement
6. Tools in Geography: Maps, Models, and Scales, GIS
7. Introduction to World: Physical, political, Cultural and Social context
8. Environment:
 - a. Meaning, types and components
 - b. Geography as an environmental science
 - c. Environment and society
9. Man-Environmental Relationship
 - a. Approach to study
 - b. Environment and man
 - c. Man's interaction with environment
10. Status of Geography in Bangladesh

References

- Adhikari, Sudepta (1999) *Fundamentals of Geographical Thought*. Allahabad: C B house.
- Dikshit, RD (2001) *Geographical Thought*. New Delhi: Prentice Hall.
- Singh, Savindra (2001) *Environmental Geography*. India
- Marsh, W M and Gross J. (1996) *Environmental Geography*. New York: Wiley & sons
- Park, C. 2001. *The Environment*. USA

FIRST YEAR**SECOND SEMESTER**

Course Code	Course Title	Marks	Credits
DMC 105	Principles of Disaster Management	100	4
DMC-106	Remedial English	100	4
DMC-107	Economics	100	4
DMC-108	Bangladesh Studies	100	4
	Viva-Voce	50	2
	Total	450	18

DMC- 105: Principles of Disaster Management

1. **Theory:** General principles of management and their specific applications in the field of disaster management. Explain the role of management, the basic principles of organizational design as well as the different perspectives on change in the workplace.
 2. **Disaster management systems:** Comprehensive disaster management (CDM) approach, Bangladesh Disaster management models and approaches, Regulatory framework of Bangladesh Disaster Management system, Institutional Framework of Bangladesh Disaster Management system, Standing Orders on Disaster Management and roles of DMC(s).
 3. **Disaster prevention and mitigation:** Principles, Framework for prevention and mitigation, Institutional and legal mechanisms for risk reduction, Advocacy and role of public awareness, National preparation of prevention and mitigation strategies.
 4. **Disaster preparedness:** Principles of preparedness, Preparedness plans, contingency plans
 5. **Disaster response:** Key steps for emergency response. Sectoral support during emergencies. Media and information management, Resource management, Emergency coordination center and role of incident manager. Term paper: a simulation exercise.
 6. **Disaster, recovery, rehabilitation and reconstruction:** Early recovery, Importance of early recovery, Early recovery and DRR, concepts of development relief, Build back better theory and practice in different sectors
 7. **Disaster management plan and implementation aspect:** Disaster management plan and preparation of a plan, relief management, change management through DMC, Accountability DM projects, Monitoring of risk reduction interventions and evaluation, Development and implementation of sectoral/ personal action plans:
 8. **Community based disaster management:** Community, empowerment, community resilience and preparedness for disaster, community-based organizations (CBO) and non-profit organizations (NPO) role in DM.
- Term paper:** Prepare a community disaster management plan/disaster management of a pourashava/city corporation or Upazila.

References

- ADB (1992) *Disaster Mitigation in Asia and the Pacific*. Manila, ADB.
- BDPC and PACT. Stoner, J.A.F. and Freeman, R.E. (2000) *Management*. New Delhi, Prentice-Hall.
- Blakie, P. et al (1994) *At Risk: Natural Hazards, People's Vulnerability and Disasters*. London, Routledge.
- Carter, W.N. (1991) *Disaster Management: A Disaster Manager?* Handbook. Manila, ADB.
- Gupta, H.K. (2004). *Disaster Management*. University Press, India.
- IDNDR (2000a) *Natural Disasters: Strategies for Mitigation and Disaster Response*. Germany, IDNDR.
- Iyengar, R.N. (1997) *Natural Hazards in the Urban Habitat*. Tata McGraw-Hall Publishing Company Ltd, New Delhi.
- New Delhi. Srivastava (2007) *Earthquakes Geography and Management*. New Age International (P) Ltd, New Delhi.
- Rahman, M.S. (1993) *Disaster Management Handbook for Bangladesh, Parts I-IV*. Dhaka,
- Roy, P.K. (2006) *Disaster Preparedness against accidents*. New Age International (P) Ltd, New Delhi.
- Sahini, P. (2003) *Disaster Risk Reduction in South Asia*. Prentice-Hall of India Private Limited.
- Sieglein (2002) *Security Planning and Disaster Recovery*. Tata McGraw-Hall Publishing Company Ltd,
- Wehrich, H. and Koontz, H. (1993) *Management: A Global Perspective*. New York, McGraw Hill.

DMC- 106: Remedial English

Course Objectives:

This course covers the following objectives: (1) to give students knowledge to about the correct usages of English with an emphasis on reading skills in order to be able to study effectively and think logically, (2) to practice writing skills at the sentence and paragraph level with correct grammatical structures (3) to practice speaking and listening skills so as to be able to communicate with daily situations effectively, (4) to enable students to acquire enough English skills to further their studies at advance, (5) to help students understand the cultures, traditions and general knowledge of Native English Speakers.

Course Contents:

1. Reading and understanding

- a. Comprehension (from an unseen passage)

2. Usage of Grammar

- a. Use of right form of verbs
- b. Use of Article
- c. Use of appropriate Preposition

- d. Transformation of Sentence
- e. Idioms and Phrases
- f. Correction of Sentences
- g. Framing WH Questions
- h. Communicating English (Notions/Functions)
- i. Voice Change
- j. Structure

3. Writing Skill

- a. Paragraph Writing: Principles and types
- b. Letter Writing: Personal, Social, Official, Commercial and Diplomatic

4. Translation

- a. English to Bengali
- b. Bengali to English

References

Dr. Sadruiddin Ahmed, *Learning English the Easy Way*

A. J. Thomason and A.V. Martinet, *A Practical English Grammar*

Murphy, R, *Intermediate English Grammar*

DMC- 106: Economics

Course Objectives:

This course introduces students to fundamental economic concepts and theory, including demand, supply, and the formation of equilibrium prices in product and resource markets. In addition, the course offers an introduction to applied fields such as industrial organization (market structure), labor economics, unionism, international trade, and public economics. The core learning objectives for the course are: (1) Demonstrate understanding of the fundamental economic concepts; (2) Critically analyze and interpret economic data; (3) Apply economic reasoning to analysis of current events and case readings.

Course Contents:

1. Fundamental Concepts of Economics

- a. Definition, nature & scope of economics
- b. Three fundamental problems of economics
- c. Solution of three basic problems under different economic systems
- d. Opportunity cost, Production possibility curve, Shift or production possibility curve, Significance of PPF, Resource allocation, and concept of efficiency.

2. Supply and Demand:

- a. Demand and Quantity demand, Demand schedule, Demand curve.
- b. Supply and quantity supplied, supply schedule, supply curve.
- c. Equilibrium of supply and demand, movement along supply and demand curve, shifts of SS and DD curve and its effects on equilibrium price and quantity.
- d. Price elasticity of SS & DD, different types of elasticity, price elasticity DD & SS, cross elasticity of DD, income elasticity of DD, and determinants of elasticity of DD.

3. Demand and Consumer Behavior:

- a. Choice and utility theory, Law of diminishing marginal utility, Law of demand.
- b. Income effect/Substitution effect, individual to market demand, Substitutes/complements, consume surplus.
- c. Definition of indifferent curve and its properties, Marginal rate of substitution, Budget line, consume

4. Production and cost:

- a. Total, average and marginal physical product, production function.
- b. Law of diminishing marginal returns and returns to scale.
- c. Fixed cost, variable cost, short run and long run cost curve, shape of average and total cost curve, relation between average cost and marginal cost, marginal product and least cost rule, choice of input proportion

5. Market Structure

- a. Behavior of a competitive firm, competitive SS and marginal cost curve, SR equilibrium of a competitive firm, shut down and break even analysis, industry equilibrium in the short run.
- b. Pattern of imperfect competition, monopoly, marginal revenue and monopoly, profit margin output of monopoly, inefficiency and monopoly, dead weight loss, comparison of perfect competition and monopoly.
- c. Basic ideas: Oligopoly, duopoly, monopolistic competition

References

Henderson and Quandt: *Micro Economic Theory*

H.L Ahuja: *Advanced Economic Theory*

K.K Dewett: *Modern Economic Theory*

DMC-108: Bangladesh Studies

Course Objectives: To introduce the students to the key concepts like socio-economic, geo-political, institutional, social organizational, context of origin and development of Bangladesh. It also studies the socio-political and economic context of war of liberation and its significance to the Bengali nations. The students will also be familiar with different contemporary issues like the process of agricultural modernization, industrialization, private sector development, the role of foreign investors and development partners in private sector development, etc. It further overviews women and development issues, demographic and health features etc.

Course Contents:

1. Brief geo-political and socio-economic history of Ancient Bengal The nature of origin and development of Bengal Civilization
2. The socio-political and economic context of Liberation War of Bangladesh and the background of the emergence of Bangladesh as an Independent Country.
3. The major Socio-Economic and Cultural Features of Bangladesh
4. Agricultural Development and the contribution of agricultural sector to the national economy and society of Bangladesh; An overview of agricultural policies of Bangladesh
5. The Process of Industrialization in Bangladesh: The evolution of industrial growth

- in Bangladesh; sector wise development of industries; the role of private and public sectors in industrial development; An overview of industrial policies of Bangladesh
6. Private Sector Development in Bangladesh: The contribution of Private Sector in the economy of Bangladesh; An overview of private sector development policy in Bangladesh; The opportunities and Challenges of private sector development; The role of Foreign Investors and Development Partners in Private Sector Development
 7. The Health and Demographic Features of Bangladesh: An overview of Fertility, Mortality, Marriage, Migration, Primary Health Care Services, Family Planning, Reproductive Health, Youth and Development etc.
 8. Culture, Tradition and Heritage of Bangladesh: An overview of the development of Art, Literature, Folk Culture, Music, Traditional Food Habit, Dresses, Architecture, Monument, Objects of Civilization, Song, Paintings, Classic, Traditional and Modern Songs and integration of Western Culture
 9. Rural Development: The notion and evolution of Rural development; BARD as a Model of Rural Development; Challenges and Constraints of Rural Development; The Role of NGOs, Go and Development Partners in Rural Development
 10. The Political and Governmental system in Bangladesh: The forms of Government; Bureaucracy as a system of Administration; The role of Political parties in sustaining modern democracy

References

- Afroza Begum, *Government-NGO Interface in Development Management*
- Akash, MM 'Agriculture Sector: on the threshold of the 21st Century' and Zaid Bakht 'Industrial Development in A.M. Choudhury and Fakhrul Alam (eds) Bangladesh on the threshold of the Twenty First Century.
- Ali (2004) A.N.M. Shawkat, *Bangladesh Civil Service: A Political-Administrative Perspective*, Dhaka, UPL.
- Alam, AMQ (1989) *Industrial Development in Bangladesh*
- Centre for Policy Dialogue (2004) 'Poverty Alleviation through Agriculture and Rural Development in Bangladesh'. CPD Occasional Paper 40. Rural Non-farm Economy in Bangladesh
- Ferdous Jahan (2006) *Public Administration in Bangladesh*
- Hossain, M (2004) *Poverty Alleviation through Agriculture and Rural Development in Bangladesh*.
- Khan, Akbar Ali, *The Discovery of Bangladesh*
- Mahbubullah, *Bangladesh Economy: Turns of the Decade*
- Muhith, A. M. A. Bangladesh, 'Emergence of a Nation Perspectives on the environment of Bangladesh'. In A.M Choudhury and Fakhrul Alam (eds) Bangladesh on the Threshold of the 21st Century
- Mohiuddin Ahmed (2000) *Bangladesh in the new Millennium*, Community Development Library, Dhaka.

Nagendra kumar singh *Public Administration in Bangladesh*

Rounaq Jahan, *Bangladesh Politics: Problems and Issues*, UPL, Dhaka, 1980

Sirajul Islam Choudhury, *Society and Culture, 1971-2000*, in A.M. Choudhury and Fakhru Alam (eds) *Bangladesh on the threshold of the Twenty First Century*.

Syed Giasuddin Ahmed, *Public Administration in the Three Decades* in A.M. Choudhury and Fakhru Alam (eds) *Bangladesh on the threshold of the Twenty First Century*.

The Constitution of the People's Republic of Bangladesh as amended till date.

Tasneem Siddiqui, *NGOs in Bangladesh: Challenges on the Threshold of New Millennium* in A.M. Choudhury and Fakhru Alam (eds) *Bangladesh on the threshold of the Twenty First Century*.

SECOND YEAR**FIRST SEMESTER**

Course Code	Course Title	Marks	Credit
DMC-201	Disaster and Emergency Response Management: Principles and Practice	100	4
DMC-202	Principals of Accounting	100	4
DMC-203	Contemporary Issues in Disaster Management	100	4
DMC-204	Principle of Human Communication	100	4
	Total	400	16

DMC-201: Disaster and Emergency Response Management: Principles and Practice

1. Concept on Response and its mechanism; principles of disaster emergency response, humanity, neutrality and impartiality; importance of encouraging regional and international cooperation.
2. Emergency Response Planning; Emergency preparedness and its categories; Earthquake preparedness plan, cyclone preparedness plan, and flood preparedness plan. Importance of civil-military cooperation; consistent with internationally agreed principles. Emergency response and disaster relief: development of ARF general guidelines on disaster management and emergency response for the use of both civilian and military personnel; UN guidelines; network and coordination between national search and rescue (SAR). Role of international search and rescue advisory group (INSARAG).
3. Contingency Plan; Regulatory and Institutional framework relief distribution channel, role community based organization in relief distribution
4. Forecast, Information and Warning Systems, community based early warning system. Early warning message preparation, community message, EW message dissemination
5. Evacuation, evacuation before and after disaster, missing person, search and rescue, search rescue equipment, role of volunteers.
6. Emergency relief, selection of relief items and relief standards, selection of relief beneficiaries, duplication control, coordination, accountability and governance in relief management system. Public and Private Partnership (PPP) for Emergency Response.
7. Flash Appeal, emergency assistant requests to national and international bodies:
8. Rehabilitation: Restoration of critical services, Early recovery and Long Term Holistic Rehabilitation., Emergency Health Preparedness and Mass Causality Management.
9. Legal issues-Emergency management-specific law, Military Involvement in Disaster Response

References:

Gupta, H.K. (2004) *Disaster Management*. University Press, India.

Iyengar, R.N. (1997) *Natural Hazards in the Urban Habitat*. Tata McGraw-Hall Publishing Company Ltd, New Delhi.

Roy, P.K.(2006) *Disaster Preparedness against accidents*. New Age International (P) Ltd, New Delhi.

Sahini, P. (2003) *Disaster Risk Reduction in South Asia*. Prentice-Hall of India Private Limited.

Sieglein (2002) *Security Planning and Disaster Recovery*. Tata McGraw-Hall Publishing Company Ltd, New Delhi.

Srivastava (2007) *Earthquakes Geography and Management*. New Age International (P) Ltd, New Delhi.

DMC-202: Principles of Accounting

Course Objectives:

The objective of this course is to help understand the basic principles of accounting and auditing and their applications to disaster management. It also aims to start developing appropriate professional judgment by understanding the theory, concepts, and issues underlying the accounting and financial auditing process for disasters. The course will provide students with an understanding of the role of accounting and auditing services as well as responsibilities and decision-making processes for better disaster management.

Course Contents:

1. **Introduction:** Accounting – information processing, income measurement, financial statements, reporting cycle; audit - legal aspects of auditing, standard auditing requirements; accounting and auditing for disasters.
2. **Data processing:** Recording transactions; internal control; double-entry bookkeeping; trial balance; information systems and audit.
3. **Financial statements:** Inventory, purchases and sales; accruals and prepayments; bad and doubtful debts; depreciation and disposal of fixed assets; preparing the balance sheet and profit and loss account; incomplete information; suspense accounts; company accounts; cash flow statement; ratio analysis; reporting; financial statement after disaster.
4. **Alternative valuation approaches, management and costs:** Accounting profit and economic income; historic cost accounting and current values; planning and co-ordination; control, communication and motivation; information for decision-making; stock valuation – full and marginal costing; valuation, management and costs for disasters.
5. **Decision making and future planning:** Cost-volume-profit analysis; capital investments; payback period; accounting rate of return; discounted cash flow techniques; budgets and forecasts; working capital management; costs; behavioural effects of using budgets; variance analysis.
6. **Key accounting issues in disasters:** Impairment of physical assets, goodwill and intangible assets; impairment of financial assets carried at amortised cost; valuation of inventories; provisions; onerous contracts; insurance; continuing

business viability; non-adjusting subsequent events; future operating losses and cleanup costs; hedge accounting; impacts of reduced profitability.

7. **Auditing standards:** Audit reports; contractual/common law duties; negligence; expectations gap; independence; influences; evidence; documentation; risk; materiality; disaster auditing – standards and practices.
8. **Planning, control and testing:** Audit planning; internal control evaluation; internal control testing; substantive testing; specific auditing practices, audit programs; audit committees; internal versus external auditing; sampling techniques, analytical review; disaster audit - planning, control and testing.
9. **Disaster recovery and business continuity auditing:** Business continuity plan; disaster recovery capacity; alternate site designation, training of personnel and insurance; recovery time objective and recovery point objective; mission statement; documentation - records, billings, and contracts; strategies - site designation, backup; others – insurance, communication, emergency procedures, environmental issues.
10. **Accounting and auditing of disaster fund use:** Fraud and poor performance in fund use; identifying risks and controls; setting measurable targets; advantages and pitfalls of auditing practices; performance auditing and performance measurement; sustainability and survivability; environmental accounting and auditing; social auditing; case studies.

References

- Boynton, W.C., Johnson, R.N. and Kell, W.G. 2001. *Modern Auditing*, 7th Edition, USA: Wiley.
- Dechow, P.M. 1994. 'Accounting Earnings and Cash Flows As Measures of Firm Performance: The Role of Accounting Accruals'. *Journal of Accounting and Economics* 18(1): 3-42.
- Glautier, M.W.E. and Underdown, B. 2001. *Accounting Theory and Practice*, 7th Edition, Harlow: Financial Times Prentice Hall.
- Labadie, R.J. 2008. Auditing of Post-Disaster Recovery and Reconstruction Activities. *Disaster Prevention and Management* 17(5): 575 – 586.
- Matilal, S. and Höpfl, H. 2009. 'Accounting for the Bhopal disaster: Footnotes and Photographs'. *Accounting, Auditing & Accountability Journal* 22(6): 953 - 972.
- Wolf, F.M. Tackett, J.A. and Claypool, G.A. 1999. Audit Disaster Futures: Antidotes for the Expectation Gap? *Managerial Auditing Journal* 14(9): 468 - 478.

DMC – 203: Contemporary Issues in Disaster Management

Course Objectives:

The starting point for any disaster management and mitigation program is determining the physical and socio-economic vulnerabilities of the people and infrastructures. Recent major disasters represent a more or less complete cross-section of disaster categories including atmosphere, the oceans and solid earth. Disasters can best be understood and managed through the adoption of a broad interdisciplinary approach that includes law, economics, psychology, social science and the physical sciences. In this course, using recent disasters as case studies, the students will learn to critically understand the

phenomenon of unfolding of disasters followed by a natural (rapid or slow onset), human-induced or terrorism related event and work individually towards developing their own disaster risk reduction models. The underlying concepts of disasters will be discussed using the following guideline for topics:

Course Contents:

1. A critical examination of the currently existing mitigation measures, such as, what worked; what didn't and why
2. Identify root causes of people's vulnerability
3. Progression of vulnerabilities leading to unsafe conditions
4. Socio-economic and political impacts
5. Health issues
6. Insurance against disasters
7. Legal issues
8. Moral, ethical and philosophical issues
9. Role of NGO's and self-help groups
10. Role of various levels of government and international agencies
11. Issues related to regions, cultures, and religion
12. Education and awareness
13. Short term and long term recovery strategies, Building resilient communities, Mitigation measures for sustainable community development, Terrorism related issues

Some of the examples of cases of disasters that occurred recently are as follows:

- Indian Ocean tsunami of 26 December 2004
- Alaska oil spill – December 2004
- Hurricane and landslide in Guatemala (October 2005)
- Earthquake in China – December 2005
- Hawaii dam bursts – March 2006
- North Carolina toxic fire – October 2006
- Terrorist attack of 9/11
- Some case studies of recent disasters like SIDR, Nargis, Aila, Katrina, Rita, Iasi, Haiti Earthquake, Recent Flood, Japan's Earthquake, Tsunami and Nuclear Radiation in Global and National Context etc

References

- Abbott, P.L. (2005) *Natural Disasters*: McGraw Hill. 496 pp. (Fifth Edition).
- Aptekar, L. (1994) *Environmental Disasters in Global Perspective*. G.K. Hall & Co. (an imprint of Macmillan Company). 198 pp.
- Cutter, S.L. (Ed.)(1994) *Environmental risks and hazards*. Prentice Hall, p413.
- Etkin, D., Haque, C.E. and Brooks, G.R. (editors), (2003) *An Assessment of Natural Hazards and Disasters in Canada*. Kluwer Academic Publishers.

- Grossi, P. and Junreuther, H (Editors). (2005) *Catastrophe Modelling: A New Approach to Managing Risk*: Springer. 245 pp.
- ISDR (2004) *Living with Risk: A global review of disaster reduction initiatives – Volume 1*. United Nations publication, New York and Geneva. p429.
- Keller, E.A. and Blodgett, R.H. (2006) *Natural Hazards: Earth's Processes as Hazards, Disasters, and Catastrophes*: Pearson Prentice Hall 395 pp.
- OCED (2004) *Large-Scale Disasters: Lessons Learned*. Organisation for Economic Co-operation and Development. 98 pp.
- Posner, R.A. (2004) *Catastrophe: Risk and Response*: Oxford University Press. 322 pp.
- Quarantelli, E.L. (Ed.). (1998) *What is a disaster*, Routledge, p311.
- Ronan, K.R. and Johnston, D.M. (2005) *Promoting Community Resilience in Disasters: The Role for Schools, Youth and Families*: Springer. 210 pp.
- Smith, K. (1996) *Environmental Hazards: Assessing Risk and Reducing Disaster* (2nd edition), London: Routledge.
- Wisner, B., Blaikie, P., Cannon, T. and Davis, I., 2004. *At Risk: Natural Hazards, People's Vulnerability and Disasters*. Routledge, 469 pp.

DMC-204: Principles of Human Communication

Course Objectives:

The objective of the course is to 1.) Develop an awareness and appreciation of the complexities of the speech communication process; 2.) Understand the principles of human communication theory by identifying the elements and interrelationship of the elements in a communication model; 3.) Expand perception skills, comprehend the effects of self concept on communication, and understand how meaning is created; 4.) Identify the strengths and weakness of language in our communication; 5.) Explain the importance of nonverbal communication and the value of interpretation of nonverbal messages; 6.) Develop a greater understanding and appreciation of the role of empathy and equality in human communication; 7.) Develop awareness and the ability to recognize propaganda. 8.) Develop new listening habits and skills and a systematic method of listening behavior; 9.) Develop a personal, constructive approach to dealing with conflict situations through speech communication strategies of conflict resolution; 10.) Practice the principles of effective group communication, identify the various roles and norms in the group communication process, and understand the characteristics of leadership; 11.) Practice and understand the benefits and limitations of John Dewey's Reflective Thinking Technique for group problem solving, and; 12.) Demonstrate the art and principles of preparing and delivering an effective public speech.

Course Contents:

1. **Communication and Society**
 - a. Definition and types of communication
2. **Research Methods and Techniques in human Communication**
 - a. Survey method and content analysis
 - b. Semiological analysis and conversation analysis
3. **Theoretical Perspectives in human Communication**
 - a. Marxist perspective

- b. Functionalist perspective
 - c. Critical theory
 - d. Feminist perspective
4. **Communication: Products- Representation and Images**
 - a. Media and ideology construction
 - b. Media representations and social inequality: class, gender and race
 5. **Audience**
 - a. Types and composition of audiences
 - b. Characteristics of audiences and feedback
 6. **Communication effects**
 - a. Media influence and socialization
 - b. Theories of media effects
 - c. Media imperialism , digital divide and digital natives
 7. **Human communication and Social Change**
 - a. Media organizations
 - b. Products, control and contradictions
 - c. Human communication and social change in Bangladesh

References

- Joseph A. DeVito, *Essentials of Human Communication*, 5th ed., Allyn & Bacon, 2001.
- Michael Dues & Mary Louise Brown, *Boxing Plato's Shadow: An Introduction to the Study of Human Communication*, McGraw-Hill, 2003.
- Thomas L. Friedman, *The World Is Flat : A Brief History of the Twenty-first Century*, Farrar, Straus and Giroux, 2005.
- Mcquail D., 1969, *Towards a Sociology of Mass Communication*, London, Collier MacMillan
- James Curran and Michael Gurevitch, *Mass Media and Society*
- David Croteau and William Hoynes, *Media/Society: Industries, Images, and Audiences*
- Gail Dines and Jean Humez,(ed), *Gender, Race and Class in Media: A Text Reader*
- Danis Mcquail, *Mass Communication Theory*
- Blumler, J.G., katy, E, uds, 1974, *The user of Mass Communications: Current Perspectives on gratifications Research*, Beverly Hills, Calif; Sage
- De Fleur, M, Ball - Rokeach, S. 1975, *Theories of Mass Communication*, NY: McKay, 3rd ed.
- McQuail, D, Blumler, J. G., Brown, J. R, 1972, *In Sociology of Mass Communication*, England
- Rogers, E. M, edt. 1976, *Communication and Development: Critical Perspectives*, Beverly Hills, Calif; Sage
- Wright, C. R. 1975a, *Mass communication: A Sociological Perspective*, Ny: random House, nd ed
- Wood, A., 1977, *The Myth of Mass Culture*, Macmillan, London

SECOND YEAR**SECOND SEMESTER**

Course Code	Course Title	Marks	Credit
DMC-205	Introduction to Statistics	100	3
DMC-206	Disaster Preparedness and Vulnerability Reduction	100	3
DMC-207	Early Warning, Forecasting and Disaster Management	100	3
DMC-208	Informatics for Disaster Management	100	3+1
DMC-209	Disaster, Health and Emergency Management	100	3
	Viva voce	50	2
	Total	550	18

DMC-205: Introduction to Statistics**Course Objectives:**

This course deals with the application of various statistical/methodological techniques by providing instruction and practice in their use in social science data analysis. The selection of appropriate statistical methods requires some understanding of the various types of levels of measurements that can be obtained. In analyzing any data set, there are basically three functions which statistical procedures can perform to help students: 1. Description of the variables, 2. testing of the statistical significance of observed differences or relationships and 3. Measurement of the degree or closeness of any observed association. This course will basically introduces basic concepts of statistics and describe variables with appropriate methods.

Course contents:

1. **Introduction:** Definition, nature, scope and importance of social statistics, the social roots of statistical knowledge, functions of statistics: uses and abuses, Limitations of social statistics, Measurement process, level of measurement & their implication.
2. **Summarization and presentation of statistical data:** Frequency distribution: proportion, percentage, ratio and rate, tabulation, univariate, bivariate and multivariate table; Graphical Representation of Data: Merits and Demerits of using Graph, Types of Graphs: Bar diagram, Histogram, Frequency polygon, Ogives. The Pie Chart.
3. **Measures of Central Tendency and Dispersion:** Desirable Characteristics of Central Tendency: Mean, Median, Mode and computing mode from grouped and ungrouped data, Merits and demerits of mode, choosing a Measure of Central Tendency; **Measures of Dispersion:** Properties of good measures of dispersion, Importance of measures of dispersion, Types of measures of dispersion: Absolute measures: Range, the Interquartile range, Mean deviation, Standard Deviation, Variance, Relative measures, Coefficient of Variation, Coefficient of Quartile Deviation and Coefficient of Mean Deviation
4. **Probability and Normal Distribution:** Introduction to Probability, Basic Concepts, Critical Interpretation of Probability: Classical Interpretation, Relative Freq, A Priori Probability, Mathematical Properties of Probability, Counting Rules of Probability: Permutations and Combinations.

5. **The Normal Distribution:** Finite vs. Infinite Distribution, Use of Normal Distribution, Areas under normal curve Characteristics of Normal Distribution, The Standard Normal, Using the Normal Curve to Estimate Probabilities.
6. **Sampling and Hypothesis testing:** Sampling: Definition Meaning, Importance and Functions, Types of sampling, Problems of Sampling, Determination of Sampling size, Theories of Sampling; Hypothesis Testing: An over view of Hypothesis testing, The five-step Model for Hypothesis testing, Single Sample Test, Chi-Square Test, Two Sample Hypothesis Testing.
7. **Association between Variables: Interval and Ratio Level:** Basic Concepts, Correlation Co efficient, Pearson Product Moment Correlation Coefficient, the Point Biserial Correlation Coefficient, Choosing a technique, Regression and Prediction, The computation of Population Parameter and Slopes, Assumptions of Regression, Regression Line, Methoda of Least Square, Making and Evaluating Prediction, A Brief Introduction to other Regression methods
8. **Introduction to the Analysis of Variance:** Basic Concepts, Assumptions of ANOVA, Logic of ANOVA, One –way ANOVA, TWO-way ANOVA, Determining Statistical Significant and Interpretation

References

- Agresti , A. and Barbara Finalay (1997) *Statistical Methods for the Social Sciences*. NJ: Prentics Hall Inc.
- Gibbons, J. D. (1993) *Nonparametric Statistics: An Introduction*. London: Sage
- Hinton, R. R. (2004) *Statistics Explained* (2nd ed.). NY: Routledge
- Kirk, R.E.(1999) *Statistics: An introduction* (4th ed.).Ny: Harcourt Brace College Publishers
- Tabachnick,B.G. and Linda S. Fiedell (2001) *Using Multivariate Statistics*. Boston:Allyn and Bacon
- Walsh, A. (1990) *Statistics for the Social Sciences with Computer Applications*: NY: Harper and Row Publishers

DMC-206: Disaster Preparedness and Vulnerability Reduction

Course Objectives:

The course will give an overview of the range of strategies for preparedness in the pre-impact stage in disaster-prone areas and correspondingly reducing vulnerability of communities. The purpose is to instill awareness of the importance of disaster preparedness for damage prevention and vulnerability reduction, and associated risk reduction strategies such as insurance.

Course Contents:

1. Introduction to Disaster Preparedness: Theory, Policy, and Practice Issues, Definition of Preparedness, Types of Preparedness: Structural vs Non-Structural preparedness, Relationship of Preparedness to Other Parts of the Disaster Continuum.

2. Formulating Policies for Disaster Preparedness Programs, Prerequisites for Preparedness Planning: Assessing vulnerability, Planning, Institutional framework, Information systems, Resource base, Warning systems, Response mechanisms, Public education and training, Rehearsals (drills).
3. Elements of Preparedness Planning for Emergency Response
4. Preparedness for slow onset and sudden onset disasters
5. Preparedness Issues: Common Problems in Preparedness, Issues in Preparedness: Stockpiling, Community Shelters, Centralization versus Decentralization, Use of the Military and Civil Defense, Technical Assistance, Planning The Political Elements
6. Disaster preparedness assessments, Preparedness planning, Specifications of preparedness requirements, Risk management strategies, Preventive and/or mitigating actions, Risk insurance. Developing an action plan
7. General Preparedness Plan: The National Plan, Preparedness Roles and Responsibilities: Disaster Organization and Preparedness Models and Guidelines, Non-Governmental Organizations, Inter-Agency Coordination
8. Public Awareness and Warnings: Need for Public Education, Typical Activities of Public Awareness Programs: Communication and Planning, Public Warnings and Information, Disaster Management Team: The UN Disaster Management Team, Country Disaster Management Team

References

- Cuny, F. (1988) *Disaster Preparedness Recommendations for Bangladesh*. Dhaka, UNDP.
- Medina, J.C. (1992) "Community Awareness and Participation Programme in Disaster Preparedness and Rural Development" in *Integrated Approach to Rural Development and Disaster Management in Bangladesh*, Vol. II. Nagoya, UNCRD.
- Nakabayashi, I. (1993) "Urban Planning Based on Disaster Risk Assessment" in *Disaster Management in Metropolitan Areas for the 21st Century*. Nagoya, UNCRD.
- Nirapad (1997) *Network for Information, Response and Preparedness Activities on Disaster*. Dhaka, Nirapad.
- Office of the United Nations Disaster Relief Coordinator (1984) *Preparedness Aspects: Disaster Prevention and Mitigation*. New York, United Nations.
- Paul Thompson and Eric Heggen (1987) *Disaster Preparedness Study Guide and Course Text*, prepared by the Disaster Management Center at the University of Wisconsin
- Shah, H.C. (2002) 'Beyond Earthquake Loss Estimation Technologies: Strategies for Risk Reduction' in International Conference on Earthquake Loss Estimation and Risk Reduction, Bucharest.

DMC-207: Early Warning, Forecasting and Disaster Management

1. **Use of Technology:** The Use of Earth Observation Satellites for Disaster Management, Space Technologies for Disaster Management.
2. **Early Warning Dissemination System:** What is Early Warning? System of Early warning: Public Daily Situation Report System, FAX, EMAIL, VHF/UHF COMMUNICATION, PRINT AND ELECTRONIC MEDIA, WEBSITE, CELL BROADCASTING, IVR (INTERACTIVE VOICE RESPONSE), SMS (Short Message Service).
3. Establishment of Disaster Management Information Center (DMIC), Top-Down approach, DMIC/N Information Flows: National Level, District And Upazilla Level.
4. **Early Warning Dissemination:** BMD and FFWC generates early warnings, Early Warning and Mass media, CPP Roles for Early warning, Committees under SOD ensure EW dissemination at all level.
5. **Forecasting & Monitoring:** Satellites and weather services, Use of satellite data to monitor disasters, **List of Weather Forecasts in Bangladesh:** Tropical Cyclone Warning, Kalbaishakhi/ Tornado Warning, Heavy Rainfall Warning, Warning for Squalls, Heat Wave Warning, Cold Wave Warning, Fog Warning.
6. **Flood Forecasting Warning Centre (FFWC):** Daily monsoon bulletin & river situation report, River level forecasts for 24, 48 and 72 hours, Current warning messages, Special flood situation report, Upazilla inundation status map, Flood forecast maps.
7. **Warning Dissemination in Coastal Zone:** Early Warning Message Dissemination through Cell broadcasting, Early Warning Dissemination Through IVR (Interactive Voice Response), Early Warning Dissemination through SMS: Selected Personnel Related to DM Committees, The Public Communication of Warnings.
8. **Evacuation and Rescue Operation:** Instruct local authorities for evacuation and rescue operations, Undertaking evacuation measures in risk areas by Local DM Committees, CPP Volunteers and the Community Leaders in the risk areas play important roles in evacuation to shelters.
9. **Future Plan of Early Warning in Bangladesh:** Early Warning for Fishermen Fishing in the Deep Sea through Vessel Tracking System (VTS), Cultivation based on Early Warning, Early Warning Dissemination for Flash Flood, Landslide and River Bank Erosion, Pole fitted mega siren for coastal area.

Reference

Ingleton, Jon (1999) *Natural Disaster Management* (ed). Tudor Rose Holdings Limited., ISBN 0 9536140 0 X (Hardback)

DMC-208 Informatics to Disaster Management

Course Objectives:

The course will introduce the participants about the fundamentals of computers, data storage, data representation and introduction to programming etc. It will also cover the needs, usage and implementation of disaster information network.

Course Contents:

1. **Introduction to computer:** Its components and functions, applications in various fields of science and management.
2. **Data Storage:** Primary and Secondary storage, Introduction to various computer devices such as keyboard, mouse, printers, disk files, floppies etc.
3. **Data representation:** Number systems, character representation codes, binary, hex, octal codes and their inter conversions. Binary arithmetic, Floating point arithmetic, signed and unsigned numbers. Concepts of the finite storage, bits, bytes, kilo, mega and gigabytes, Concepts of character representation.
4. **Concept of computing:** Contemporary, operating systems such as DOS, Windows'95, UNIX etc. (only brief user level description). Introduction to Internet and its use.
5. **Use of MS-Office packages Introduction to Programming:** Concept of algorithms, flow charts, example of algorithms such as how to add ten numbers, roots of a quadratic equation. Concept of sequentially following up the steps of a algorithm. Notion of program, programmability and programming languages, Structure of programs, object codes, compilers. Writing a simple program in a language like "C".
6. **Moving to a Disaster Information Network (DIN) for the Future:** Background, findings, foundation for addressing needs, vision for a future disaster information network, fundamental need to Involve stakeholders.
7. **Recommendation and Action Plan:** Policy and organization implementation, phased approach: The global extension, analysis of the ratio of costs to benefits.
8. **Global Considerations:** Global phase, GDIN international goals, priorities, GDIN international model, possible GDIN management packages, possible GDIN partners.

References

Gary B. Shelley, Thomas I Cashmar, Mistry E. Vermoat (2005) *Discovering Computers* :A gateway to information.

Rahman. M. Lutfur-Computer Fundamental

Subremaniam, N. Introduction to Computer

DMC-209: Disaster, Health and Emergency Management

1. **Introduction to Health and Emergency Management:** Role of Emergency Medicine in Disaster Management: Emergency Medicine, Disaster Principles and Phases of Emergency Management in context of health.
2. **Public Health and Disasters:** Public Health Response Cycle, Recovery, Disaster Policy and Public Health Infrastructure; Health Education and Training.
3. **Emergency Medical Services (EMS) in Disaster:** Historical perspective, Current practices and Pitfalls; Surge Capacity: Defining Surge Capacity, Dynamic Capabilities in Surge Process and other Considerations
4. **Role of Health Care System in Disaster Management:** The Effect of Disaster on Public Health Care System; Health Care Preparedness Policy: Preparedness and Response, Critical Components of Health System in Disaster Management.
5. **Emergency Health Care Need Assessment:** Major Health Care Need Assessment; Health Care Interventions; Emergency Food Program and Health Care; Surveillance Systems in Health Care.
6. **Health Care for Special Needs populations:** Elderly, disable, race and ethnicity, women, children and disaster: Medical Response and Treatments; Psychological Support; The Life Cycle of Emergency Management and Special Needs: Preparedness, training and education, response, shelters, continuity of care, recovery and mitigation.
7. **Disaster Mental and Behavioral Health:** Distress Reactions, Changes in Behavior, Approaches for Screening, Psychological Impact of Disaster; Preventing and Managing Psychological injuries: Estimates of Disaster-related Behavioral Health Casualties, Basic Disaster Mental and Behavioral Health Intervention, Behavioural Preparedness for Disaster Responders.
8. **Liability Issues in Emergency Response and Health Care:** Global, Regional and National Disaster Response; Patient Tracking Systems in Disasters Health Care System; Infectious Diseases and Response in a particular Disaster Zone.
9. **Ethical Issues in Health Care Management:** Spectrum of Disaster Dilemmas, Theories of medical ethics, Code of Ethics and Disaster Response, virtue and disaster.

References

Ciottone, Darling; Auf Der Heide, Anderson; and Suner, Jacoby Noji (2006) *Disaster Medicine*, 1600 John F.Kennedy Boulevard, Suite 1800, Philadelphia, PA 19103-2899, ISBN-13: 978-0-323--03253-7

Koenig, Kristi L. and Schultz, Carl H. (2010) *Disaster Medicine: Comprehensive Principles and Practices*. Cambridge University Press, Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi, Dubai, Tokyo, ISBN-13 978-0-511-90175-1

Dori B. Reissman, Merritt D. Schreiber, James M. Shultz, and Robert J. Ursano (2010) 'Disaster Mental and Behavioral Health'. In Koenig, Kristi L. and Schultz, Carl H. (ed) *Disaster Medicine: Comprehensive Principles and Practices*.2010. Cambridge

University Press, Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi, Dubai, Tokyo, ISBN-13 978-0-511-90175-1

Phillips, Brenda D. (2010) 'Special Needs Populations. In Koenig, Kristi L. and Schultz, Carl H. (ed) *Disaster Medicine: Comprehensive Principles and Practices*.2010. Cambridge University Press, Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi, Dubai, Tokyo, ISBN-13 978-0-511-90175-1

Roselle, Gary A. 'Syndromic Surveillance'. In Koenig, Kristi L. and Schultz, Carl H. (ed) *Disaster Medicine: Comprehensive Principles and Practices*.2010. Cambridge University Press, Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi, Dubai, Tokyo, ISBN-13 978-0-511-90175-1

Barbisch, Donna; Haik, Josef, Tessone, Ariel, and Hanfling, Dan (2010) 'Surge Capacity'. In Koenig, Kristi L. and Schultz, Carl H. (ed) *Disaster Medicine: Comprehensive Principles and Practices*.2010. Cambridge University Press, Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi, Dubai, Tokyo, ISBN-13 978-0-511-90175-1

THRID YEAR**FIRST SEMESTER**

Course code	Course Title	Marks	Credit
DMC-301	Theoretical Approaches to Disaster Management	100	3
DMC-302	Geographic Information System (GIS)	100	3+1
DMC-303	Disaster, Media and Risk Communication	100	3
DMC-304	Global Protocols on Disaster Issues	100	3
DMC-305	Disaster Insurance	100	3
	Total	500	16

DMC-301: Theoretical Approaches to Disaster Management

1. Toward a Theory of Disaster, A Comparison of Disaster Paradigms: The Search for a Holistic Policy.
2. Historical Perspectives on DM: Pioneers of History: contribution of Max Weber and Karl Marx.
3. Economic and Decision: Economic Theory, Decision theory, Systems theory, Chaos theory, Management Theory.
4. Social constructionist views, Organizational behavior, Development Perspectives, Sustainability Perspectives.
5. Pre-Modern to Modernity and Post-Modern Stage.
6. Ulrich Beak: Ulrich Beck: Risk Society, Second Modernity, Methodological Nationalism, Classical versus Cosmopolitan Theory, Individualization, Globalism versus Globalization.
7. Approaches to Disaster Management: Sociological, Anthropological, Geographical, Technical and Development Studies Approaches, Behavioral and Ecological Approaches: Semiotics.
8. Theories and Matrix of Vulnerability.
9. Perception on Disaster and Ecofeminism.

References

Abel, N., D. H. M. Cumming, and J. M. Anderies. (2006) 'Collapse and reorganization in social-ecological systems: questions, some ideas, and policy implications. *Ecology and Society* 11(1): 17. [online] URL:<http://www.ecologyandsociety.org/vol11/iss1/art17/> (21 pp)

Beck, Ulrich (1992) *Risk Society: Towards a New Modernity*. London: Sage.

Beck, Ulrich, Anthony Giddens & Lash Scott (1994) *Reflexive Modernization. Politics, Tradition and Aesthetics in the Modern Social Order*. Cambridge: Polity Press.

Frerks, G., D.J.M. Hilhorst, and A. Moreyra (1999) "Natural disasters: Definitions and concepts." In: *Natural disasters; a framework for analysis and action; Report for MSF*. Wageningen: Disaster Studies. 7-15. (9 pp)

Guha-Sapir, D., D. Hargitt, and P. Hoyois. "A look behind the numbers." In *Thirty years of natural disasters 1974 - 2003: the numbers*. Louvain: UCL Presses Universitaires de Louvain. 13-55. (43 pp)

Hazards, People's Vulnerability and Disasters. Wisner, B., P. Blaikie, T. Canon & I. Davis London, Routledge. 87- 124 (38 pp)

McEntire, David A.; Fuller, Christopher; Johnston, Chad W. and Weber, Richard (2002) A Comparison of Disaster Paradigms: The Search for a Holistic Policy Guide , *Public Administration Review*, Vol. 62, No. 3 (May - Jun., 2002), pp. 267-281 Published by: Blackwell Publishing on behalf of the American Society for Public Administration Stable URL: <http://www.jstor.org/stable/3110212>

Moore, Harry Estill (1956) Toward a Theory of Disaster, *American Sociological Review*, Vol. 21, No. 6 (Dec., 1956), pp. 733-737 Published by: American Sociological Association, Stable URL: <http://www.jstor.org/stable/2088426> .

Stallings, Robert A. (2002) 'Weberian Political Sociology and Sociological Disaster Studies]Reviewed work(s): Source: *Sociological Forum*, Vol. 17, No. 2 (Jun., 2002), pp. 281-305, Published by: Springer Stable URL: <http://www.jstor.org/stable/3070327>.

Wisner, B., P. Blaikie, T. Canon and I. Davis (2004) "Access to resources and Coping in Adversity". In:, *At Risk, Natural*

DMC-302 Geographic Information System (GIS)

1. **Remote Sensing:** Fundamental of Remote Sensing, platform and sensors, image interpretation, digital image processing, microwave remote sensing, remote sensing application, Indian space programme, future satellites for disaster management; Case studies - (Practicals).
2. **Basic concept of GIS:** Definition of GIS, Definition of data, database and information, Database management in GIS environment, Various technique of data input into computer, Digitizing Geographical features like points, lines and polygons, Problems of digitizing and scanning data, Vector and Raster data types, their advances and disadvantages in GIS application, Conversion of Vector data into Raster data and vice versa, Masking to separate a particular area for intensive study Application of GIS in various fields, History of GIS.
3. **Data Manipulation Techniques:** Interpolation and its use, Buffer, application of buffer and their problem, Distance and its, application, Reclass and its application in GIS environment and Overlay techniques and their potential uses in various fields, Sub-model formation, Weighting and Multi-criteria Evaluation (MCE) for selecting suitable site for various establishments to safeguarding the environment.
4. **Mapping Concepts:** Definition of map and map features, Characteristics of Map, Scale of map and its importance, Concept of layer, topographical maps, thematic maps, attribute information and display information.
5. **Application of GIS for Resource Identification and Management:** Concept of image enhancement such as colour composite preparation, Unsupervised and Supervised Image Classification technique, Image classification for land use, Land use change detection over time, Application of satellite image in combination with sea surface temperature, GPS, GIS and fish catch data to

maximize the fish catch in minimum time and effort.

6. **Remote Sensing and GIS for Disaster Management:** Geological and human made disasters; flooding, earthquakes, tsunamis, cyclones, volcanic, thermal, landslides, wildfires (urban and forest), coalfires, droughts, land degradation, deforestation, coastal hazards, air and water pollution, oil spills in water.

References

Bonham-carter GF (1994) *Geographical Information System for Geoscientists-modeling with GIS*. Clarendon

Clarendon DeMers MN (1997) *Fundamentals of Geographical Information Systems*. Wiley.

Floyd F. Sabins Jr. (1987) *Remote Sensing, Principles and interpretation*: W.H. Freemanes & Co., New York, 2nd Edition, 1987.

Lillesand T.M. & Kiefu R.W. (1994) *Remote Sensing and Image Interpretation*: John Wiley and Sons, New York.

Pergamon Burrough PA (1986) *Principles of Geographical Information Systems for Land resource Assessment*. Clarendon

Stan Marany (1999) *GIS Solutions in Natural Resource Management*: Onward Press, USA.

Geographic Information System (GIS)- Sessional (01 Credit)

1. **Hands on tutorial How to incorporate Geographical features**
 - a. Digitizing Geographical features like points, lines and polygons, b. Conversion of Vector data into Raster data and vice versa, c. Making window to have a particular area as study of interest, d. Mask preparation to separate a particular area for intensive study, e. Preparation of continuous surface map from tabular data (preparation of water quality, pollution, temperature, rain fall map etc.), f. Application of Buffer, Distance, Reclass, weighting procedure and Overlay technique in GIS environment to safeguard the environmentally sensitive areas.
2. **Concept of image classification and enhancement for resource identification**
 - b. Preparing false colour composite image for better visual discrimination, b. Unsupervised and Supervised Image Classification technique to classify various land use pattern (water body, mangrove, other forested land and agricultural crop separation technique), c. Land use change detection over time (Time series analysis)

DMC-303: Disaster, Media and Risk Communication

Course Objectives:

The course provides an overview of the different methods for communicating disaster risk and preparedness measures and building public awareness, of which training programs is an essential part. The objective is to enable students to gain the necessary knowledge and skills to develop their own disaster risk and vulnerability reduction training and public awareness programs and/or to contribute to such programs.

Course contents:

Concept of Communication; Types of Communication; Communication Strategy; Disaster Phases; Selection of Media and Media Plan, tools and techniques; Role of Media at different phases of disaster; Communication Plan and Disaster Risk Reduction; Disaster, Fore-casting, Early Warning and Communication; Counselling for Disaster Prone People; Disaster, Communication and Case Studies; Communication Ethic and Disaster; Role of Communication in Disaster Management from gender perspective, Communication and dissemination techniques, Public awareness campaigns, Training programs, Role of media, internet and telecommunications.

References

Bratschi, G. (1998) "Programming Risk Awareness Raising Campaigns: A Collective Need" in UN-IDNDR and QUIPNET Internet Conference: Prevention Begins with Information.

CARE-Bangladesh (2002) *Disasters in Bangladesh and Public Awareness* (in Bangla). Dhaka, CARE-Bangladesh.

Carmen, R. (1990) *Communication, Education and Empowerment*. Manchester, University of Manchester Press.

Gandelsona, C. (ed) (2002) *Communicating for Development*. London, ITDG.

Linney, B. (1995) *Pictures, People and Power: People-Centred Visual Aids for Development*. London, Macmillan.

DMC-304: Global Protocols on Disaster Issues

1. Disaster Management Policy: Defining Policy, Significance of disaster management policy, Principles of disaster management policy, Policy options and approaches in disaster management, Essential components of disaster management policy, Formulation and execution of disaster management policy.
2. Regulatory Framework: Global-UNFCCC.
3. Hygo Framework for Action.
4. SAARC Framework for Action.
5. Kyoto Protocols.
6. COP 15, COP 16.
7. RIO20+
8. Planning for Hazard and Disaster Reduction: Disaster Management Cycle (DMC),

The Pressure and release Model (PARM), The Earth Systems Model (ESM), The Disaster Crunch Model (DCM).

References

H.K. Gupta (2003) *Disaster management*

Action against Hunger UK (2001) *NGO Initiative in Risk Reduction Case Study No. 14: Preparation for Flood-Related Disasters*. London, Red Cross.

InterWorks (1998) *Model for National Disaster Management Structure, Preparedness Plan and Supporting Legislation*. Madison, InterWorks.

Islam, S. (2003) *Disaster Management Bureau: Vision and Activities towards National Preparation*. Dhaka, DMB.

Matin, N. and Taher, M. (2001) 'The Changing Emphasis of Disasters in Bangladesh NGOs'. *Disasters*, Vol. 25, No. 3.

DMB (2000) *Disaster Management Standing Orders*. Dhaka, DMB.

DMC-305: Disaster Insurance

Course Objectives:

This course is intended to understand the role of insurance in coping up with disasters and reduce the risks of extreme events. It will cover market for disaster insurance, demand and supply side of insurance, market and government failure, information asymmetry and moral hazard different insurance schemes by the market and government. It will also encompass the role of information, transaction cost, indexing equity and efficiency, and political economy of disaster insurance. Finally, it will help understand the new role of financial institutions and product innovations. Practical instances and case studies will also be complemented with theoretical and analytical tools.

Course Contents:

1. **Introduction:** Insurance; general property insurance; financial risk sharing mechanisms and insurance; health insurance; credit insurance; financial intermediaries and disaster insurance; risk aggregation; risk segregation.
2. **Premium and coverage:** Risk pricing; insurance decision; premium, deductible, value and rebate; distortions in risk perception; availability, vividness and inclusion; framing effects in premium and benefit.
3. **Market failure:** Charity catastrophe bonds; risk-pooling and variance of returns; risk selection in disaster insurance; Nash equilibria; situation under redistributive premium rates; profits of reinsurance; premium rate and “social” cost; risk aversion; risk-pool transfer; control of moral hazard - deductibles, coinsurance, and exclusions of coverage.
4. **Information:** Decision-making costs and imperfect information; seeking and not seeking information; ambiguous insurer probabilities; supply side imperfections - capital market imperfections, premium regulation.
5. **Sharing catastrophic/systemic risks:** Risk requirement and risk-sharing market;

risks and conditions for insurability; transaction costs; cognitive failures; government involvement – assistance, primary insurer, public-private partnership; private sector risk-sharing; risk-sharing and development; incomplete risk-sharing markets for natural disaster; insuring natural disaster; index contracts and risk protection; potential difficulties and government intervention.

6. **Equity and efficiency in natural disaster insurance:** Regulation of natural disaster insurance; insurance pricing; compensatory transfers; equity-efficiency trade-off; improving the trade-off; prevention by communities.
7. **Disaster insurance in agriculture:** Demand for crop insurance; insurability of crop yields; rationale for government intervention; role of private sector; group risk; rating; costs of crop insurance; impact on production; actuarial issues - adverse selection and moral hazard.
8. **Financial institutions, decisions and innovations:** Financing, challenges facing the insurance industry; role of reinsurance; emergence of state pools; role of the capital markets; decision processes; simplified decision rules; simplified decision rules; nested decision structures; reinsurance premiums and limits; decision rules for insurance and reinsurance; financial risk assessment; broadening protection against catastrophic losses; creative insurance solutions for climate change adaptation; role of microfinance institutions.
9. **Political economy of disaster insurance:** Supply and distorted demand; government versus market - risk-reduction, risk aggregation and segregation, control of moral hazard, government failure; government effectiveness and successes - agricultural disaster assistance; management; enabling conditions and regulation - direct regulation, liability; public policy and sequential consumers; mandated insurance - risk-based premiums.

References

- Barnet, B.J. (1999) “US Government Natural Disaster Assistance: Historical Analysis and a Proposal for the Future”. *Disasters* 23(2): 139-155.
- Besley, T. (1989) “Publicly Provided Disaster Insurance for Health and the Control of Moral Hazard”. *Journal of Public Economics* 39(2): 141-156.
- Botzen, W.J.W. and van den Bergh, J.C.J.M.(2008) “Insurance Against Climate Change and Flooding in the Netherlands: Present, Future, and Comparison with Other Countries”. *Risk Analysis* 28(2): 413-426.
- Gallardo, G. (1984) “The Markets for Disaster Insurance”. *The Geneva Papers on Risk and Insurance* 9(31): 175-187.
- Ghesquiere, F. and Mahul, O. (2007) *Sovereign Natural Disaster Insurance for Developing Countries: A Paradigm Shift in Catastrophe Risk Financing*. WPS4345, Washington, D.C.: The World Bank.
- PublicGlauber, W.J. (2004) “Crop Insurance Reconsidered”. *American Journal of Agricultural Economics* 86 (5): 1179-1195.
- Glauber, W.J. and Collins, K.J.(2002) “Crop Insurance, Disaster Assistance, and the Role of the Federal Government in Providing Catastrophic Risk Protection”. *Agricultural Finance Review* Fall 2002: 81-101.

- Johnson, E.J., Hershey, J., Meszaros, J. and Kunreuther, H. (1993) “Framing, Probability Distortions and Insurance Decisions”. *Journal of Risk and Uncertainty* 7: 35-51.
- Kárník, V. (1984) “Existing Recommendations and Definitions on Disaster Insurance”. *The Geneva Papers on Risk and Insurance* 9(31): 3-7.
- Kleindorfer, P.R. and Kunreuther, H.C.(1999) “Challenges Facing the Insurance Industry in Managing Catastrophic Risks”. In: K.A. Froot (ed.), *The Financing of Catastrophe Risk*, Chicago: University of Chicago Press.
- Kunreuther, H.C. (1984) “Causes of Underinsurance against Natural Disasters”. *The Geneva Papers on Risk and Insurance* 9(31): 206-220.
- Kunreuther, H. 1978. *Disaster Insurance Protection: Public Policy Lessons*, New York: Wiley.
- Kunreuther, H. (1974) “Disaster Insurance: A Tool for Hazard Mitigation”. *Journal of Risk and Insurance* 41(2): 287-303.
- Kunreuther, H. and Pauly, M. (2006) “Rules Rather than Discretion: Lessons from Hurricane Katrina”. *Journal of Risk and Uncertainty* 33:101-116.
- Kunreuther, H. and Slovic, P. (1978) “Economics, Psychology, and Protective Behavior”. *American Economic Review* 68(2): 64-69.
- Miranda, M. (2001) “Innovations in Agricultural and Natural Disaster Insurance”. *American Journal of Agricultural Economics* 83(3): 650-655.
- Picard, P. 2008. Natural Disaster Insurance and the Equity-Efficiency Trade-Off. *Journal of Risk and Insurance* 75(1): 17-38.
- Priest, G.I. (1996) “The Government, the Market, and the Problem of Catastrophic Loss”. *Journal of Risk and Uncertainty* 12:219-237.
- Raschk, P.A. (2007) “Charity Hazard — A Real Hazard To Natural Disaster Insurance?” *Environmental Hazards* 7(4): 321-329.
- Rettger, M.J. and Boisvert, R.N. (1979) “ Flood Insurance or Disaster Loans: An Economic Evaluation”. *American Journal of Agricultural Economics* 61(3): 496-505
- Skees, J.R. (2000) “A Role for Capital Markets in Natural Disasters: A Piece of the Food Security Puzzle”. *Food Policy* 25: 365-378.
- Skees, J.R. and Barnett, B.J. (1999) “Conceptual and Practical Considerations for Sharing Catastrophic/Systemic Risks”. *Review of Agricultural Economics* 21(2): 424-441.
- White, G.F., Kates, R.W. and Burton, I. (2001) “Knowing Better and Losing Even More: The Use of Knowledge in Hazards Management”. *Environmental Hazards* 3: 81-92.

THIRD YEAR**SECOND SEMESTER**

Course Code	Course Title	Marks	Credit
DMC-306	Gender and Disaster Risk Reduction	100	3
DMC-307	Community Based Approaches to Disaster Management	100	3
DMC-308	Disaster Risk Reduction: Principles and Practices	100	3
DMC-309	Tools and Techniques of Disaster Management	100	3+1
DMC-310	Human Resource Development in Disaster Management	100	3
	Viva voce	50	2
	Total	550	18

DMC-306: Gender and Disaster Risk Reduction

1. **Gender based Vulnerability and Disaster Risk Reduction:** Gender aspects and Vulnerability: Social, Physical, and Psychological, Gender specific needs during disaster and Violation of Gender Rights.
2. **Mapping of Agencies:** Mapping of INGOs, NGOs and GOs activities on Gender and DRR in Bangladesh, Strength and weakness of each approach.
3. **Gender analysis:** Analyze and identify key gender issues and challenges with respect to the specific intervention areas in DRR, Identify and evaluate strategic options for future SDC support to gender and DRR; Gender Budgeting and DRR.
4. **Poverty:** Poverty, Feminization of Poverty, Gender and WATSAN activities.
5. **Health and Disaster Risk Reduction:** Health during Disaster, Disability: Issues and Disaster Management, Disaster Management: Gender and diverse group (children, elderly), Gender and Local Governance in Disaster Management.
6. **Gender, Capacity and Disaster Management:** Coping Mechanisms and Adaptation Strategies, Gender and Household Food Security, Food Procurement, Intra-household food allocation and Nutritional Response to Disaster.
7. **Standards and Roles:** Sphere Minimum Standards in Disaster Response, Social network, employment/IGA, Role of Forestry, Village common resources in Disaster Management.
8. **Preparedness and Mainstreaming:** Gender and Disaster Preparedness, Prevention and Risk Reduction, Gender strategy in disaster preparedness; Gender Mainstreaming in Disaster Management (Emergency Response), Role of women in Disaster Planning and Management, Disaster Management system and Cyclone Shelter.
9. **Policies related to DRR and Gender:** Development of gender-sensitive Disaster Management Programme, Gender, disaster & empowerment, Gender sensitive disaster policy.

References

Ariyabandu, M.M. and Wickremasinghe, M. (2003) *Gender Dimensions in Disaster Management*. Sri Lanka, ITDG.

Dasgupta, Samir; Siriner, ismail and De, Partha Sarathi (eds) (2010) *Women's Encounter with Disaster*:Frontpage Publication Ltd.

Enarson, E. (2000) *Gender and Natural Disasters*. IDCRR Working Paper no. 1, Geneva, ILO.

Enarson, E. and Morrow, B.H. (eds) (1999) *The Gendered Terrain of Disaster: Through Women's Eyes*. Westport (CT), Greenwood Publishing.

Fothergill, Alice (1996) "Gender, Risk and Disasters". *Mass Emergencies and Disasters*, Vol. 14, No. 4.

Morrow, B.H. and Phillips, B.D. (eds) (1999) Special Issue: "Women and Disasters". *Mass Emergency and Disasters*, Vol. 17, No. 1.

Nasreen, Mahbuba, 1995. *Coping with Floods: the experiences of rural women in Bangladesh*, Unpublished Phd dissertation, Massey University, New Zealand.

Nasreen, Mahbuba et al, 2014. 'Flood induced Vulnerabilities and Problems Encountered by Women in Northern Bangladesh', *International Journal of Disaster Risk Science*, China: Springer, 2014

Nasreen, Mahbuba, 2014. 'Ten Years of Disaster Risk Reduction in Bangladesh', *sothasiadisasters.net*, Special issue No.113, June, 2014

Nasreen, Mahbuba. 2012. *Women and Girls: Vulnerable or Resilient?* Institute of Disaster Management and Vulnerability Studies, University of Dhaka, 2012.

Nasreen, Mahbuba. 2010. *Comparing Food and Cash Transfer to the Ultra Poor in Bangladesh*, published by the International Food Policy and Research Institute (IFPRI), 2010

Nasreen, Mahbuba. 2009. 'Sustainable Development and Impact of Climate Change: A Gender Perspective', paper published in *Facing the Challenges of Climate Change: Issues, Impacts and Adaptation Strategies for Bangladesh*, Edited by ITN-BUET and British Council.

Nasreen, Mahbuba, 2008. *Violence Against Women during Disaster and Post-Disaster Situations in Bangladesh*, 2008. Dhaka: ActionAid International and ActionAid Bangladesh.

Nasreen, Mahbuba, 2007. *Social Inclusion: Gender and Equity in Education SWAPs in South Asia*, Bangladesh Case Study, published by United Nations Children's Fund, Regional Office for South Asia, (UNICEF ROSA).

DMC-307: Community Based Approaches to Disaster Management

Course Objectives:

The course provides an overview of approaches for facilitating communities to develop disaster preparedness and recovery plans. The objective is to develop appreciation of the

importance of the role of the community in managing disasters that it faces and the function of organizations in facilitating this management.

Course Contents:

1. Introduction, Disaster Management: A Paradigmatic Shift.
2. Participatory methods, Community mobilization, Facilitating self-help initiatives, sustaining long-term community based disaster management.
3. Toward Disaster Resilient Communities: A New Approach
4. Disaster Resilient Communities: A Conceptual Framework, Strengthening Community Resilience: Major Strategies.
5. Reducing the Vulnerabilities of the Communities at Risk, Building Local Capacities.
6. Disaster Resilient Communities: A Gender Perspective, Creation of Disaster Resilient Communities: Key Concerns.
7. How a Community Can Successfully Come Back Better and Stronger Post-Disaster?: Community Redevelopment process and Core principles, Redevelopment in Post-Disaster Communities.
8. Community based disaster management approaches in Bangladesh: Concepts and practice, community preparedness, building disaster resilient communities.
9. Organizations involved: role of government, NGOs, private and international organizations.

References

Ahmed, K.I. (2001) Participatory Action Research on Building-for-Safety Options for Low-Income Rural Housing in Flood-Prone Areas. Research report. Dhaka, BUET and UK, University of Exeter.

Ara, S. (1998) "Participatory Monitoring and Evaluation of Flood-Proofing Pilot Project, CARE-Bangladesh". PLA Notes, Issue 31. London, IIED.

Dixit, A. (1999) "Community-Based Initiatives in Earthquake Risk Management Process in Nepal" in NSET-2, The Kathmandu Valley Earthquake Risk Management Action Plan. Kathmandu, NSET.

Maskrey, A. (1989) "Disaster Mitigation: A Community Based Approach" in Mata, F. and MacDonald, M. (eds) Human Settlements: People Making a Difference. San Jose (Costa Rica), Earth Council.

Pinkowski, Jack. Disaster Management Handbook. CRC Press, Taylor & Francis Group, 6000 Broken Sound Parkway NW, Suite 300

UNCRD (2003) International Workshop on People, Communities and Disasters. Proceedings. Hyogo, UNCRD.

DMC-308: Disaster Risk Reduction: Principles and practices

1. **Concepts of disaster risk reduction:** Principle of disaster risk reduction, Tools and Techniques, Mainstreaming disaster risk reduction, Hazard identification and hazards specific risk identification, nature and effects of disaster on different sectors, quantification of methods of community risk assessment, risk and vulnerability from a disaster, Disaster risk reduction activities and for sustainable development planning.
2. **Disaster risk reduction approaches and frameworks:** Risk reduction models, strategies in different sectors, climate change mitigation and adaptation option, livelihood adaptation option UNFCCC and HFA Guideline and activities
3. **Mainstreaming and Institutionalizing disaster risk reduction:** Indicator of Institutionalization, Mainstreaming risk reduction in different sectors, Preparing organizations for disaster, risk reduction through policy, programme and knowledge management, role of citizen in mainstreaming risk reduction. Role of education sector in mainstreaming risk reduction
4. **Mitigation:** Mitigation approaches, Structural mitigation non-structural mitigation for all hazards e.g earthquake, landslide, flood, cyclone, tornado, drought
5. **Managing the risk environment:** Risk element and event modification through environmental control and land use planning, reducing the loss- hazard resistance design & retrofitting; Business risk analysis and business continuity plan; Disaster risk reduction and development planning; Risk reduction strategies in different sectors; climate change mitigation and adaptation option, livelihood adaptation option; Risk perception and communication, risk indices, risk reliability, resiliency.
6. **Risk treatment:** Choice of risk treatment options, accepting the loss, sharing the loss-disaster aid, disaster financing, insurance; Risk element and event modification through environmental control and land use planning; reducing the loss- hazard resistance design and retrofitting. Risk analysis and business continuity plan.
7. **Choosing technologies for risk reduction:** Technology choice context, application and use, housing improvement in Bangladesh, failure to adopt risk reduction technologies, financing technologies, supporting livelihood while reducing disaster risk.
8. **Risk reduction after disaster: risk reduction in** relief, rehabilitation and development activities, features of development relief, rebuilding livelihood after disaster, public works.
9. **Risk reduction initiative of Government of Bangladesh:** Safety net programme, cash for work, food for work, 100 day work programme, test relief and other risk reduction programme in Bangladesh._Challenges of safety net programme in Bangladesh.
10. **Community level risk reduction:** value of community level work, operational issue and challenges, mobilizing community, community action planning, key features of local level risk reduction. Household risks reduction measures

References

- Aysan, Y. (1993) "Vulnerability Assessment" in Merriman, P. and Browitt, C.W.A. (eds) *Natural Disasters: Protecting Vulnerable Communities*. London, Thomas Telford.
- Bartle, P. (2003) *From Disaster to Development*. Seattle, CDS.
- Blakie, P. et al (1994) *At Risk: Natural Hazards, People's Vulnerability and Disasters*. London, Routledge.
- Iyengar, R.N. (1997) *Natural Hazards in the Urban Habitat*. Tata McGraw-Hall Publishing Company Ltd, New Delhi.
- Roy, P.K. (2006) *Disaster Preparedness against accidents*. New Age International (P) Ltd, New Delhi.
- Organization of American States (1990) *Disaster, Planning and Development: Managing Natural Hazards to Reduce Loss*. Washington DC, USAID.
- Sahini, P. (2003) *Disaster Risk Reduction in South Asia*: Prentice-Hall of India Private Limited.
- Sieglein (2002) *Security Planning and Disaster Recovery*. Tata McGraw-Hall Publishing Company Ltd, New Delhi.
- Srivastava (2007) *Earthquakes Geography and Management*. New Age International (P) Ltd, New Delhi.
- UNDP (2004) *Reducing Disaster Risk: A Challenge for Development*. New York, UNDP.

DMC-309: Tools and Techniques of Disaster Management

1. Vulnerability Mapping (community, local and national), Vulnerability Analyses, Participatory vulnerability Analyses (PVA), Capacity Analyses, Institutional Analyses and Disaster risk management (DRM) system Analyses.
2. Situation Analyses and Community Risk Assessment (CRA) and local disaster risk reduction action planning.
3. Hazards prediction, alerting and warning tools and techniques for Earthquake, cyclone, tornado, landslide and floods.
4. Initial Environmental Impact Assessment (EIA): procedures and practices.
5. Social Impact Analyses (SIA) and Multi criteria techniques for Social Impact Analysis.
6. Livelihood assets analyses and its impact on Social Impact Assessment after a catastrophic disaster.
7. Techniques for assessing and projecting shore retreat, sea level rise, ground water table, coastal and marine disasters.
8. Assessing the seismic hazards & earthquake vulnerabilities and tolls for non-structural awareness rising for earthquake.

9. Damage loss and need analyses (DLNA), RIR and Early recovery need analyses tools and techniques.
10. Decision Support System (DSS): Concepts, systems, institutions and techniques for hazards and disaster.
11. Tools: Tools for assessing the challenges associated with risks, hazards, and vulnerabilities of affected peoples; Tools for appraising disaster mitigation needs, policies and capacity; Tools for Evaluating disaster risk reduction initiatives; Tools for construction design, building standards and site selection; Tools for Economic analyses; Tools for sustainable livelihood approach; Tools for Logical and result based frameworks; Tools for DRR project cycle management.

References

- Bonham-Carter, G.F. (1994) "Geographical Information System for Geoscientists modeling with GIS Program". In Burrough, P.A. (2001) *Principles of Geographical Information Systems*: Clarendon.
- Curran, P.J. (1985) *Principles of Remote Sensing*: ELBS.
- DeMers, M.N. (1997) *Fundamentals of Geographical Information System*: Willy & Sons.
- Disaster Recovery planning for communications and Critical Infrastructures World BANK, ECLAC DNLA Methods
- Ferguson, M. (1998) *GPS Land Navigation: Grassland*
- Jesson, J.R. (1996) *Introductory Digital Processing: A Remote Sensing Perspective*: Pentice Hall, Englewood Cliffs.
- Konecny, G. (2003) *Geo-information: Remote Sensing, Photogrammetry and Geographic Information System*: Taylor & Francis, London and New York.
- Lillesand, T.M. and Kiefer, R.W. (1994) *Remote Sensing and Image Interpretation*: John Wiley & Sons.
- Lucas, I.F.J. (2000) *Principles of Remote Sensing*. ITC Education Textbook Science-2. ITC, Enschede, The Netherlands.
- Maguire, D.; Goodchild, M. and Rhind, D.W. (1991) *Geographical Information systems: Principles and Applications*: Longman.
- Martin, D. (1996) *Geographic Information System*: Routledge.
- Petak, W.J and Atkisson, AA. *Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected*. New York, Springer-Verlag.
- Sabins, F.F. (1996) *Remote Sensing: Principles and Interpretation*. Freeman.
- Schwengerdt, R.A. (1983) *Techniques for Image Processing and Classification in Remote Sensing*, Academic Press. World Bank, ECLAC DLN A Methods.

DMC-310: Human Resource Development in Disaster Management

1. **Human resource management:** Importance; Meaning; Characteristics, Principles; Objectives; HR and Personnel management, disaster management organization in Bangladesh and international humanitarian organizations.
2. **Organization of human:** Setting up of a HR Department in a disaster management organization(s); Status of HRD; HR, resource department (HRD) authorities; Key roles/current activities of HRD; Development of HR system.
3. **HRM model:** Organization/Job design; Human resource planning; Selection & staffing; Personnel research and information systems; Compensation/benefits; Employee assistance; Union/labour relations; Training and development; Organization development.
4. **Organization:** Disaster Management organizations (national and International). International Humanitarian organizations, Environmental challenges of External challenges; Organizational challenges; HRM Professional challenges.
5. **Disaster management Job analysis:** Meaning; Uses/benefits; Collection of job analysis information/methods of job analysis; Application of job analysis information; Job design-Organizational element; Environmental elements; behavioural elements; Job redesign-Techniques of job redesign.
6. **Human resource planning: Meaning;** Types; Benefits; Causes of demand for (HRP) human resources; Forecasting techniques for estimating future HR needs.
7. **Recruitment:** Meaning; Constraints and challenges of recruitment; Internal recruitment channels; External recruitment channels. Selection: Meaning; Steps in the selection process; Interviewer errors; Interviewee errors.
8. **Employee placement:** Promotion; Transfer; Demotions; Separations; Preventions of separation.
9. **Training and development:** Introduction; Importance; Training cost Benefits; Steps to training and development; Training and development approaches.
10. **Performance appraisal (PA):** Meaning; Importance; Uses; Elements of P A system; P A methods, Human Resource Competency Survey (HRCS): Content and approach.

References

- David, A.D. and Robbins, S.P. (2003) *Personnel/Human Resource Management*. Prentice-Hall of India, New Delhi, 3rd edition.
- Hersey, P.; Blanchard, K.H. and Johnson, D.E. (2001) *Management of Organizational Behavior-Utilizing Human Resources*: Prentice-Hall India, 7th Edition.
- William, B.W. and Davis, K. (2003) *Human resources and Personnel Management* :McGrawHill Book Company, 5th edition.

FOURTH YEAR**FIRST SEMESTER**

Course Code	Course Title	Marks	Credit
DMC-401	Disaster Management in Bangladesh	100	3
DMC-402	Project Management	100	3
DMC-403	Incident Command System(ICS) Management	100	3
DMC-404	Earthquake Preparedness and Vulnerability Reduction	100	3
DMC-405	Research Methodology	100	3
	Total	500	15

DMC-401: Disaster Management in Bangladesh

1. Policies, Planning and Programmes related to Disaster Management: Comprehensive Disaster Management Programme (CDMP), Disaster Prevention and Mitigation Framework (Regulatory and institutional framework for disaster management).

2. Disaster management institutions and committees.
3. Regulatory Framework in Bangladesh: Standing order on Disaster Management
4. National Plan for Disaster Management.
5. Disaster Preparedness and Implementation, GO-NGO and Development Partner Collaboration in Disaster Management.
6. Role of different institutions, committees and groups in disaster management under Standing Orders on Disaster (SOD).
7. Disaster Management Act: Bangladesh, India, Pakistan.
8. Planning for Hazard and Disaster Reduction: Disaster Management Cycle (DMC), The Pressure and release Model (PARM), The Earth Systems Model (ESM), The Disaster Crunch Model (DCM).

References

H.K. Gupta (2003) *Disaster management*

Action against Hunger UK (2001) *NGO Initiative in Risk Reduction Case Study No. 14: Preparation for Flood-Related Disasters*. London, Red Cross.

InterWorks (1998) *Model for National Disaster Management Structure, Preparedness Plan and Supporting Legislation*. Madison, InterWorks.

Islam, S. (2003) *Disaster Management Bureau: Vision and Activities towards National Preparation*. Dhaka, DMB.

Matin, N. and Taher, M. (2001) 'The Changing Emphasis of Disasters in Bangladesh NGOs'. *Disasters*, Vol. 25, No. 3.

National Plan for Disaster Management (2008-2015) Dhaka, DMB

DMB (2000) *Disaster Management Standing Orders*. Dhaka, DMB.

DMB (2008) *Draft Disaster Management Act*. Dhaka, DMB

DMC-402: Project Management

Course Objectives:

The course is primarily aimed at introducing the students to the world of 'projects' and 'project analysis' by acquainting them with the key concepts, debates, approaches, tools, and strategies relating to the analyses and dynamics of project management during and post disaster period. At the end of the course, the students are expected to develop a broad based understating of the key tools, and issues surrounding project design and analysis both globally and nationally.

Course Contents:

1. **Introducing projects as 'Cutting Edge' of Development and Management:** Concept, Rationale, Categories, Features and Characteristics, Project life Cycles, Basic Ideas of Project Analysis, The Place of Economic and Financial Analysis in Project Evaluation, Points of views in Project Analysis: Economic, Social, and Financial.
2. **Disaster Project Planning and Design:** Disaster management Project Planning

and Designing Process, Why Plan? Typical Steps of Disaster Projects Planning and Designing.

3. **Disaster Management Project Monitoring and Evaluation:** Project Monitoring, Project Evaluation, Practical Cases/Examples: GOB, UN, EU, UNDP, Format and Practices, PRA.
4. **Costs and Benefits in Project Analysis:** Identifying the Costs and Benefits of Project with a Special Reference to Disaster Management Benefit and Development-Cost Ratio.
5. **Discounted Cash Flow Measures and Application:** Selected Popular Measures of Discounted Cash Flows, Net Present Worth, Internal Rate of Return.
6. **Popular Tools of Project Analysis, Design, and Management:** Social Impact Assessment (SIA), Stakeholder Analysis, Logical Framework, SWOT Analysis and others.
7. **Disaster Management Project Planning and Practices in Bangladesh:** Key Processes, Procedures and Institutions in Project Planning in Bangladesh, Critical Factors affecting Project Planning and Management.

References

- Beili P., Anderson J. R., Barnum H. N., Dixon J. A., and Tan J. (2001), *Economic Analysis of Investment Operations*, Washington: The World Bank
- Booth W., Ebrahim R. and Morin R. (1998) Participatory Monitoring, Evaluation and Reporting. South Africa Pact.
- Casley D. J. and Lury D. A. (1982) *Monitoring and Evaluation of Agriculture and Rural Development Projects*. Baltimore and London: The Johns Hopkins University Press for the World Bank.
- Chada S. (1989), *Managing Projects in Bangladesh*. Dhaka: University Press Limited.
- Chambers, Robert (1994), 'The Origin and Practices of Participatory Rural Appraisal', *World Development*, 22 (7): 953-969.
- Chambers, Robert (1994), 'Participatory Rural Appraisal (PRA): Analysis fo Experiences' *World Development*, 22(9): 1253-1268
- Choudhury S. (1993), *Project Management*: New Delhi: Tata McGraw Hill Publishing Co.
- Curry S. and Weiss J. (2000) *Project Analysis in Developing Countries*. London: Macmillan Press Ltd.
- EC (2002), *Project Cycle Management Handbook*, European Commission, Europe Aid Cooperation.
- Gittinger J. P. (1977), *Economic Analysis of Agricultural Project*. Baltimore and London: The Johns Hopkins University Press for the World Bank.
- Gasper Ges (200). 'Evaluating the Logical Framework Approach: Towards Learning Oriented Development Evaluation', *Public Administration and Development*, 20: 17-28.
- Gosling L. and Edwards M. (1995), *Toolkits: A Practical Guide to Assesment, Monitoring, Review and Evaluation*. London:: Save the Children.

ILO n. d. *Project Preparation Implementation Monitoring, Evaluation: Users's Hand Book*. Dhaka: International Labour Organization.

Khan N. A. (1997) 'Logical Framework as a Tool for Participatory Development Planning: Revisiting the Debate', *Chattgong University Studies*, Vol.xvii & Xviii No. 1 pp-117-127

NORAD (1999) *The logical Framework Approach*. Oslo: Norwegian Agency for Development Cooperation.

SIDA (1996), *Manual on Self-Evaluation Part-1 and 2*. Switzerland: Swiss Agency for Development and Cooperation.

Squire L. and Tak H. G. (1975), *Economic Analysis of Projects*. Baltimore and London: The Johns Hopkins University Press for the World Bank.

Team Technologies Inc. n. d. *Teams and Project Design: Team Up Workbook*, Team Technologies Inc.

UNDP (1997), *Results-oriented Monitoring and Evaluation*, New York: UNDP

Yound T. (2003), *The Project Management Manual*, New Delhi: Penguin Books.

DMC-403: Incident Command System (ICS) Management

1. Defining the system, ICS Origin, Terminology: Organizational positions, Resource elements, Facilities, Integrated communications, Comprehensive resource management.
2. Management Concepts and System Characteristics: *Effective Span-of-Control, "Modular" Organization, Concepts-Agency Autonomy, Management by Objectives (MBO), Unit Integrity, Functional Clarity*, ICS Design Criteria.
3. Overview of the system: Command, Operations, Planning, Logistics, Finance.
4. The Incident Action Planning Process, Management-by-Objectives Framework.
5. Decision Support Systems for Disaster Management.
6. Unified Command: What is Unified Command? Why Unify Command?
7. ICS Characteristics Pertinent to Unified Command, Unified Command Configuration.
8. Challenges of Incident Management: Situational Awareness, Communications, Resources.

9. Managing Medical Resources, Integrating Volunteer Efforts

References

Aurt, Erik and der heide (1989) *Disaster Response: Principles of Preparation and Coordination*

Pinkowski, Jack (2008) *Disaster Management Hand Book*. CRC Press: Taylor & Francis Group, Number-13: 978-1-4200-5862-8,

Wallace, William A. and Balogh, Frank De (1985) "Decision Support Systems for Disaster Management" *Public Administration Review*, Vol. 45, Special Issue: Emergency Management: A Challenge for Public Administration (Jan., 1985), pp. 134-146 Published by: Blackwell Publishing on behalf of the American Society for Public Administration, Stable URL: <http://www.jstor.org/stable/3135008>.

DMC-404: Earthquake Preparedness and Vulnerability Reduction

Course Objectives:

The course provides knowledge on the causes and effects of earthquakes and understanding of strategies for reducing potential damage and loss of life due to this destructive hazard. The objective is to extend skills and know-how to be able to contribute to the development of organized approaches for earthquake vulnerability reduction. Contents: Vulnerability and risk assessment, Preparedness and awareness building, Rehabilitation issues, Structural and non-structural vulnerability reduction methods.

Course Contents:

1. **Introduction to Earthquake:** Critical Areas of Concern in Earthquake Management, Overview of Past Initiatives in Bangladesh, Recent Initiative in Bangladesh, Earthquake Engineering Education, the Approach to Earthquake Management, Framework for Earthquake Management.
2. **Guidelines for Earthquake Management:** Guidelines for Earthquake Management, Mainstreaming Earthquake Mitigation, Six Pillars of Earthquake Management, Time Line for Implementation. DM Plans, Institutional Mechanisms

for Implementation.

3. **Earthquake-Resistant Design and Construction of New Structures:** Need for Making All New Constructions Earthquake-Resistant, Time-Frame and Milestones, Institutionalization of Earthquake-Resistant Design and Construction, Compliance Review, Time-frame for Compliance of Seismic Safety of New Constructions.
4. **Seismic Strengthening and Retrofitting of Lifeline and Priority Structures:** Need for Seismic Strengthening of Existing Structures, Prioritisation of Structures, Structural Safety Audit of Critical Lifeline Structures, Public Awareness Campaigns, Seismic Strengthening and Retrofitting, financial Allocations for Carrying out Selective Retrofitting.
5. **Regulation and Enforcement:** Building Codes and Other Safety Codes, Techno-Legal Regime, Licensing and Certification of Professionals, Compliance Review, Techno-Financial Regime, Earthquake Resistant Construction in Rural and Semi-Urban Areas, Schedule for Regulation and Enforcement.
6. **Awareness and Preparedness:** Public Awareness, Awareness Drives for Specific Target Groups, Earthquake Preparedness, Medical Preparedness, Disaster Management Plans, Schedule for Awareness and Preparedness Activities.
7. **Capacity Development (including Education, Training, R&D and Documentation):** Earthquake Education, Capacity Development, Training, Capacity Building of Professionals, R&D, Documentation. Schedule for Capacity Building (including Education, Training, R&D, and Documentation).
8. **Earthquake and Response** Earthquake Response, Emergency Search and Rescue, Emergency Relief, Incident Command System (ICS), Community Based Disaster Response, Involvement of the Corporate Sector, Specialized Teams for Response, Improving Earthquake Response, Emergency Logistics, Emergency Medical Response, Schedule for Response Activities.

References

ADPC (2003) *Earthquake Vulnerability Reduction in Cities (EVRC-3): Reader and Participants Manual*. Bangkok, ADPC.

Ali, M.H. and Choudhury, J.R. (2001) "Assessment of Seismic Hazard in Bangladesh" in Nizamuddin, K. (ed) (2001) *Disaster in Bangladesh: Selected Readings*. Dhaka, DRTMC.

Choudhury, J.R. (1997) *Seismic Hazards and Bangladesh Scenario*. Dhaka, DMB.

DDC (1993) *Seismic Zoning and Earthquake Risk Analysis of Bangladesh*. Dhaka, BNBC.

FEMA (2000) *Earthquake Hazard Mitigation Handbook*. Washington DC, FEMA.

DMC-405: Research Methods in Disaster Management

Course Objectives:

This course provides students with a basic understanding of the distinct character of both quantitative and qualitative research process and its roles in social science research. The main objective is to provide students with hands on training of various research methods

used in sociological studies. The course deals with the general logic of scientific inquiry, research design, sampling, measurement, questionnaire design, as well as qualitative and quantitative data-analysis and presentation. By the end of this course, students will be able to conceptualize a research problem and will be able to design and conduct his/her research project.

Course Contents:

1. **Introduction:**
 - a. Concepts: Science, Research, Disaster Research, types of Research, theoretical framework.
 - b. What is research in disaster management? The History of Disaster Research
 - c. Meaning of research methodology. Social science as a new discourse, paradigm and knowledge in disaster management
 - d. Indicators: Social, economic, cultural, psychological and political indicators in disaster management.
2. **Doing Disaster Management Research**
 - a. Disaster Research Methods, Scientific methods in Disaster Research
 - b. Developing a Researchable Issue in Disaster Management: Research Questions, Hypotheses and Models
 - c. Disaster Literature and the Role of Disaster Theories.
 - d. Qualitative and Quantitative Research and its Place in Disaster Management
 - e. The ethics in Disaster research, objectivity in research, value judgment.
3. **Quantitative and Qualitative approach**
 - a. **Quantitative Approach:** Central principles of quantitative methodology, types of variables, causal relationships & hypotheses, Quantitative measurement, operationalisation, validity & reliability, Quantitative Research Design and process in Disaster Research.
 - b. **Qualitative Approach:** Concept of qualitative research, general criteria, qualitative research design, sampling strategies, qualitative data management and analysis
4. **Sampling and Data Collection Methods**
 - a. Sampling Methods: Population, Sample, and Sample size; what sampling strategies are used by disaster researchers?
 - b. Sample determination
5. **Data Collection and Analysis of Disaster Management Research Data**
 - a. Quantitative Tools and Data Collection: Census, Survey Method, Questionnaire and Interview, Content Analysis.
 - b. Qualitative Tools and Data Collection: Unstructured interview; Participatory research approach (PRA, PLA, PLE); Focus Group Discussion; Key Informants' Interview (KII); Case study; Ethnography; Content Analysis; Discourse Analysis; Observation Method.
 - c. Qualitative Data Analysis in Disaster Management Research, measures of association.
 - d. Quantitative Data Analysis in Disaster Management Research.
6. **Research Report Writings**
 - a. Reporting Qualitative Disaster Management Research Results.

- b. Reporting Quantitative Disaster Management Research Results: Problems, types statistics, interpretation of results, graphical representation and tabulation,
7. **Special Topics**
- a. Reporting Qualitative Disaster Management Research Results.
 - b. Reporting Quantitative Disaster Management Research Results: Problems, types statistics, interpretation of results, graphical representation and tabulation,
 - c. Common Weaknesses in Disaster Management Research, the Importance of Multi- and Inter-disciplinary Research on Disasters Management
 - d. Problems and Prospects of Disaster Management Research in the Developing World. Future Disaster Research

References

- Anthony Oliver-Smith, (1996) “Anthropological Research on Hazards and Disasters”, *Annual Review of Anthropology*, Vol. 25. (1996), pp. 303-328.
- Berg, Bruce L., 2006, “Qualitative Research Methods for the Social Sciences”, Allyn & Bacon.
- Neuman, L. N. (2000). *Social Research Methods: Qualitative and Quantitative Approaches*. Boston: Allyn & Bacon.
- Sarantakos, S. (2005). *Social Research*. Australia: Macmillian Education Australia.
- Bailey, K.D.(1987).*Methods of Social Research*. New York: The Free Press.
- Benton, T. & Craib, I (2001) *Philosophy of Social Science: The philosophical Foundations of Social Thought*. New York: Palgrave.
- Bryman, A & Cramer, D.(1994).*Quantitative Data Analysis for Social Sciences*. London: Rutledge.
- Creswell, J.W. (1994). *Research Design: Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage.
- Crotty, Michale (1998). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. Australia: Allen & Unwin.
- Denzin, N.K.& Lincoln, Y.S.(Eds.)(2000). *Handbook of Qualitative Research*. London: Sage.
- Hughes, John, A. & Sharrock, W.W.(2007).*Theory and Methods in Sociology: An Introduction to Sociological Thinking and Practice*. New York: Palgrave Macmillan.
- Punch, K.F (1998). *Introduction to Social Research: quantitative and Qualitative Approaches*: London: Sage Publication.
- Dennis S. Mileti. 1987, “Sociological Methods and Disaster Research.” *Sociology of Disasters: Contribution of Sociology to Disaster Research*, edited by Russell R. Dynes, Bruna DeMarchi and Carlo Pelanda. Milano, Italy: Franco Angeli.
- Drabek, Thomas E., 1986, “Human System Responses to Disaster: An Inventory of Sociological Findings”, New York: Springer-Verlag.
- Dynes, Russell R, Drabek, Thomas E., 1992, “The Structure of Disaster Research: Its Policy and Disciplinary Implications”, *Disaster Research Center Series/Report, Preliminary Papers*; 183.

- Erikson, Kai. 1976, "Everything In It's Path", New York: Simon and Schuster.
- Fischer, Henry W., 1998, "Response to Disaster: Fact Versus Fiction & Its Perpetuation. The Sociology of Disaster", 2nd Edition. Lanham, Maryland: University Press of America.
- Fink, A. (1995) How to Analyze Survey Data. London, Sage.
- Ira H. Cisin and Walter B. Clark. 1962. "The Methodological Challenge of Disaster Research." Pp. 23-49 in *Man and Society in Disaster*, edited by George W. Baker and Dwight W. Chapman. New York: Basic Books;
- Kreps, G.A., "Sociological Inquiry and Disaster Research", *Annual Review of Sociology*, Vol. 10. (1984), pp. 309-330.
- Lewis M. Killianm, 1956, "An Introduction to Methodological Problems of Field Studies in Disasters", Washington, D.C.: National Academy of Sciences-National Research Council;
- Moser, S.R. and Kalton, G. (1975) Survey Methods in Social Investigation. London, Heinemann.
- Pijawka, K. David et al., 1988, "Coping with Extreme Hazard Events: Emerging Themes in Natural and Technological Disaster Research", *Omega: Journal of Death and Dying*, 18(4), 281-97.
- Palm, R.I. (1990) Natural Hazards: An Integrative Framework for Research and Planning. Maryland, John Hopkins University Press.
- Pratt, B. and Loizos, P. (1992) Choosing Research Methods. Oxford, Oxfam.
- Preston, Richard, 1994, "The Hot Zone", New York: Random House.
- Priscilla R. Ulin, Elizabeth T. Robinson, Elizabeth E. Tolley", 2004, "Qualitative Methods in Public Health: A Field Guide for Applied Research", Jossey-Bass (November 1, 2004).
- Punch. K. F. (1998) Introduction to Social Research : Quantitative and Qualitative Approaches, SAGE Publications Ltd
- Robson, C. (1997) Real World Research: A Resource for Social Scientists and Practitioner-Researchers. Oxford, Blackwell.
- Quarantelli, E. L. , 1997, "The Disaster Research Center (DRC) Field Studies of Organized Behavior in the Crisis Time Period of Disasters Authors:", Disaster Research Center Series/Report, P reliminary Paper;254.
- Quarantelli, E. L. 1987, "Disaster Studies: An Analysis of the Social Historical Factors Affecting the Development of Research in the Area Authors", Social Factors Issue Date: Nov-1987 Series/Report, Articles; 195B.
- Quarantelli, E. L., 1999, "Disaster related social behavior: Summary of 50 years of research findings", University of Delaware, Disaster Research Center, Preliminary Paper, 280.
- Quarantelli, E.L., 1978, "Disasters: Theory and Research", Beverly Hills: Sage.
- Quarantelli, E.L., 2000, "What is a Disaster? Perspectives on the Question", New York: Routledge.

- Quarantelli, E.L., 1994, “Disaster Studies: The Consequences of the Historical Use of a Sociological Approach in the Development of Research”, University of Delaware, Disaster Research Center, Preliminary Paper, 264.
- Robert K. Yin, 1984, “Case Study Research: Design and Methods”, Beverly Hills, California: Sage Publications;
- Rodriguez, Havidán. 2004. “The Role, Contributions, and Complexities of Interdisciplinary Research: A Holistic Approach to Hazards and Disasters.” Paper presented at the 29th Annual Natural Hazards Workshop, July 14, Boulder, Colorado.
- Stallings, Robert A., 2003, “Methods of Disaster Research”, International Research Committee on Disasters, Xlibris Corporation.
- Theis, J. and Grady, H. (1991) Participatory Rapid Appraisal (PRA) for Community Development.
- Thomas E. Drabek. 1970. “Methodology of Studying Disasters: Past Patterns and Future Possibilities.” *American Behavioral Scientist* 13:331-343;
- Thomas E. Drabek, 1989, “Taxonomy and Disaster: Theoretical and Applied Issues.” Pp. 317-345 in *Social Structure and Disaster*, edited by Gary A. Kreps. Newark, Delaware: University of Delaware Press.
- Wilson, Introduction to Research Methodology. McGraw-Hill Book Co, NY.
- WHO, Health Research Methodology- A guide for training in research methods, JB Valera, Research Methodology and Applied Statistics

FOURTH YEAR		SECOND SEMESTER	
Course Code	Course Title	Marks	Credits
DMC-406	Disaster, Governance and Transparency	100	4
DMC-407	Child protection in Emergencies	100	4
DMC-412	Internship	100	4
Optional Courses (One from following courses to be taught)			
DMC-408	Disaster and Climate Resilience, Occupational Health and Safety	100	4
DMC-409	Climate Change: Mitigation and Adaptation	100	4
DMC-410	Psychology of Disaster Management	100	4
DMC-411	Corporate Social Responsibility	100	4
	Comprehensive and Viva voce	100	4
	Total	500	20

DMC-406: Disaster, Governance and Transparency

1. **Introduction:** Governance, governance indicators, institutions, transparency, understanding governance and transparency in disaster.

2. **Disaster Governance:** Bureaucracy, local governance, donor and international organizations, legal and regulatory framework development and reform.
3. **Disaster Risk Governance Framework:** Disaster risk governance indicators, institutional vulnerability assessment, social network analysis, macro-institutional quality, volatility in governance.
4. **Disaster Risk Reduction-DRR:** Governance effectiveness, rule of law, voice and accountability, regulatory quality, institutional vulnerability index.
5. **Accountability for DRR:** Evolving interpretations of accountability, accountability related to DRR, analysing accountability for DRR, strategies for participation and citizen action, mainstreaming DRR in development interventions.
6. **Role of Institutions:** Application of the concept of governance to disaster and risk research, decentralisation, scale of disaster risk governance, institutional vulnerability to disaster risk.
7. **Transparency in Resource Use:** Corruption, transparency, participatory management, networking, public-private partnership, citizens' score card, social auditing.
8. **Policy mechanism:** Policy delivery mechanism, policy analysis, case study.

References

Ahrens, J. and Rudolph, P.M. (2006) "The Importance of Governance in Risk Reduction and Disaster Management". *Journal of Contingencies and Crisis Management* 14(4): 207-220.

Arts, B. and Leroy, P (eds.) (2006) *Institutional Dynamics in Environmental Governance*. Springer: Dordrecht. Handmer, J.W. and Dovers, S. 2007.

The Handbook of Disaster and Emergency Policies and Institutions (2004) Earthscan: London. Henderson, L.J. 2004.

Emergency and Disaster: Pervasive Risk and Public Bureaucracy in Developing Nations. *Public Organization Review* 4: 103-119. IDS. 2011.

Exploring Climate Change and Disaster Governance Issues. Brighton: IDS. Jordan, A. and O'Riordan, T. 1995.

Institutional Adaption to Global Environmental Change: Social Institutions, Policy Change and Social Learning. *CSERGE Working Paper GEC 20*, University of East Anglia. Kahn, M.E. 2005. The Death Toll from Natural Disasters: The Role of Income, Geography and Institutions. *Review of Economics and Statistics* 87: 271-284.

DMC-407: Child protection in Emergencies

Course objective:

Who are the Children? Why children around the world especially in third world countries are more vulnerable to natural and manmade hazards than any other groups of people? How do our culture, attitude, practices, geographical location, demography, urbanization, agricultural system, education and technology constitute the vulnerability

and capacity of different groups of children in a particular country? Why the children are belongs to most diverse group? Why children need special support and care in emergencies? How do the national policies and systems developed to address the emergencies affect the children who need support? How can we compare the good practices and experiences of different organisations /countries/ communities in addressing the practical and strategic need of the Children.? Do Children have the capacity to protect themselves and others? What role they can play to have a better prepared community?

The objective of the course -Child protection in Emergencies is to provide some answers to these questions by using the available notes of experience, models in Child vulnerability theory, and studying real- case studies.

Course Contents:

1. Basic concept about child, Critical debates in Social-Science Approaches to Childhood and Youth development.
2. Psycho – Social Approach for the Protection of Children in Emergencies
3. Nature of vulnerability related to child from gender and sex perspective
4. Emergency: Emergency response to protection of children during and after disaster; challenges to emergency responses to child protection.
5. Hazard and disaster specific vulnerability of children: Cases of flood, cyclonic storms, tidal surge, arsenic contamination, fire, industrial hazards, urban and industrial work environment, ethnic conflict, war etc.
6. Child Protection: concept of child protection. indicators of protection ; protection and need assessment; Development Planning, Preparedness and Action Programme in Child Protection.
7. National and International compliances and provisions for the Child protection in emergencies

References

Ansell, N. (2005) “Global Models of Childhood and Youth (Chapter 1)”, and ‘Changing Cultural Contexts (Chapter 3)’, in *Children, Youth and Development*, pp. 8-37 and pp. 63-90. London and New York: Routledge. (Focus on pp. 8-15, pp. 19-23 in Chapter 1 and pp. 63-77 in Chapter 3).

O’Neill, T. (2000) “What is Childhood? (Chapter 1)”, in T. O’Neill and T. Willoughby (Eds) *Introduction to Child and Youth Studies*, pp. 3-9 (read pp. 3-8). Dubuque: Kendall/Hunt.

Standing order of the Government of Bangladesh on Emergency Priorities, principles and practices; Role of UNCRC in Child Protection;

Boyden, J. (1990) “Childhood and the Policy Makers: A Comparative Perspective on the Globalization of Childhood (Chapter 9)”, in A. James and A. Prout (Eds) *Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood*, pp. 184-215. Second Edition. London: Routledge-Falmer Press.

Corsaro, W. A. (2005) ‘Collective Action and Agency in Young Children’s Peer Cultures (Chapter 14)’, in J. Qvortrup (Ed) *Studies in Modern Childhood: Society, Agency, Culture*, pp. 231-247. London: Palgrave Macmillan.

Education In Emergencies In South Asia , Reducing the Risks Facing Vulnerable Children Centre for International Education and Research (CIER), School of Education, University of Birmingham, UK and UNICEF Regional Office for South Asia

Goldstein, D. M. (1998) ‘Nothing Bad Intended: Child Discipline, Punishment and Survival in a Shantytown in Rio de Janeiro, Brazil’, in N. Scheper-Hughes and C. Sargent (Eds) *Small Wars: The Cultural Politics of Childhood*, pp. 389-415. Berkeley: University of California Press.

Hendrick, H. (2003) ‘Child Welfare: Ways of Seeing (Chapter 1)’, in *Child Welfare: Historical Dimensions, Contemporary Debate*, pp. 1-17. Bristol: The Policy Press.

Mayall, B. (2000) ‘The Sociology of Childhood in Relation to Children’s Rights’, *The International Journal of Children’s Rights* 8: 243-259.

National Children Policy

Vulnerability of Children in Disasters: Presented at The Second Ministerial Conference on Disaster Risk Reduction ; 07-08 November 2007 New Delhi

Children’s Vulnerability to Weather Shocks: A Natural Disaster as a Natural Experiment ; Javier E. Baez Maxwell School of Citizenship and Public Affairs Syracuse University , Indhira V. Santos Kennedy School of Government Harvard University

DMC-408: Disaster and Climate Resilience, Occupational Health and Safety

Concepts of occupational health and safety; the nature of interrelationship between climate change, disaster and occupation health and safety; International Standards on health and safety; Workers’ rights and the role of the employers; Worker’s challenges in Urban based Industrial Sector Workers health specially the affected urban and industrial workers health conditions and their adaptation strategies; Worker’s Challenges in Agriculture and Agro-based Industrial Sectors; workers of agro-based processing units in response to climate induced disasters; Extreme climate, workers occupation and health effects; Extreme Climate Variability, Workers Vulnerability related to water, vector and rodent borne diseases; Mental, nutritional and other health effects of workers due to climate variability; Hazardous works, workers health and occupation safety; Climate change, workers health and illness and adaptation measures.

DMC-409: Climate Change: Mitigation and Adaptation

1. Introduction: overview, definition of climate, the elements of climate, causes of climate change (plate tectonics, solar output, orbital variations, volcanism, ocean variability, human influences etc), the feedback mechanisms in climate change.

2. Evidences of climate change: historical and archeological evidences, ice ages and the last ice age, vegetation, ice cores, dendrochronology, pollen analysis, insects, sea level fluctuations, global warming Holocene climate optimum, Medieval Climate Optimum, the Little Ice Age etc.
3. Measurement and prediction of climate change: Instrumental observations, satellite measurements, historical records, proxy measurements, dating, isotope age dating etc.; natural variability, predicting global warming etc.
4. The consequences of climate change: the Quaternary environment (geological consequences), ecosystem, mass extinction, weather, glaciers, ice caps, ice sheets and sea levels, oceans, historical impact of climate variations, water scarcity, agriculture, health, the economic and social consequences of extreme weather events, security etc.
5. Current understanding of climate issues and mitigation: Quota on fossil fuel production, Pacala and Socolow, Energy efficiency and conservation, alternative energy sources, carbon intensity of fossil fuels, reforestation and avoided deforestation, carbon capture and storage, geo-engineering, societal controls, policy and frameworks on climate change (governmental and intergovernmental actions, nongovernmental approaches, territorial policies of mitigation, mitigation in developing countries etc), limitations of mitigation.
6. Adaptations to climate change: necessity for adaptation, conceptualizing adaptation, criteria for assessing responses, adaptation mechanism, methods of adaptation, local level livelihood adaptation options examples etc.
7. Bangladesh in changing climate [evidences (such as flooding, cyclones, weather variability etc.), consequences, mitigation and adaptation]; integrating disaster risk reduction and climate change adaptation into development planning.
8. Kyoto protocol, COPs finding, Copenhagen outputs etc.

References

- Burroughs, W.J. (2001) *Climate Change: A multidisciplinary approach*: Cambridge University Press.
- Huq S. (1999) *Vulnerability and adaptation to climate change for Bangladesh*: Kluwer Academic publication.
- IPPC (2007) *Fourth Assessment Report of the Intergovernmental Panel on Climate Change* : UNDP
- Williams, M; Dunkerley, D; Deckker, P.D.; Kershaw, P and Chapell, J (1998) *Quaternary Environment*. Oxford University Press.

DMC-410: Psychology of Disaster Management

Course Objectives:

This course focuses on the psychological and physiological human response to disasters. Using clinical research and case histories, students will examine normal and abnormal psychological reactions, the recovery process and principles of mental health care for victims of mass disasters. Differences between natural and man-made disasters are

examined and factors that mitigate post-traumatic effects are reviewed. The course is designed to emphasize on (1) Examine the theoretical underpinnings of the psychology of disaster and how they relate to the general discipline and practice of psychology, (2) identify and demonstrate knowledge of the expected biological, cognitive, emotional, behavioral and interpersonal responses to disaster, (3) identify and demonstrate knowledge of psychologically significant aspects of various natural and man-made disasters that predispose survivors to specific types of responses and symptoms, (4) analyze the risk factors, & protective factors that predict the overall severity of psychological distress and disruption following a disaster (6) examine the types of mental health interventions employed following a disaster and articulate the general principles of effective preventive, short-term, and long-term psychiatric interventions.

Course Contents:

1. **Introduction to disaster psychology:**
 - a. Describe the prevalence, types, and impact of disasters
 - b. Review the psychological phases of a disaster.
 - c. Identify the “participants” in a disaster.
 - d. Recognize the social, historic, economic, strategic, emotional, and existential impact of disasters.
2. **Overall impact of natural and man-made disasters:**
 - a. Identify and analyze the psychologically significant aspects of natural and man-made disaster
 - b. Review the definition and characteristics of a “traumatic stressor.”
3. **Bio-psycho responses to disasters:**
 - a. Psychological response to disaster including cognitive, behavioral,
 - b. psychodynamic, and existential mechanisms
 - c. Adaptive functions and maladaptive results of these mechanisms
 - d. Biological response to disaster including nervous system, cardiovascular, and neuro-endocrine mechanisms.
4. **Acute Stress Disorder & Post-traumatic Stress Disorder (PTSD): Etiology and Clinical syndromes:**
 - a. Social costs and psychosocial impairments from PTSD
 - b. Types of trauma often related to chronic (persistent) PTSD.
 - c. Three axes of risk for these syndromes: event-related, individual, and environmental/situational variables
 - d. Individual risk & protective factors along each axis to the risk of PTSD developing
 - e. Basic principles of risk assessment and early intervention in traumatized populations at risk.
5. **Treatment of Post Traumatic Stress Disorder:**
 - a. Cognitive schemata: Relationship between stresses and adaptation
 - b. Behavioural self-blame vs. character self-blame as coping mechanisms
 - c. Pharmacological (medication) approaches to PTSD treatment
 - d. Basic principles of cognitive-behavioural approaches to PTSD treatment.
6. **The psychological impact of a disaster on children and special populations:**
 - a. Children and special populations in disasters
 - b. Effects of various disaster types on children and special populations
 - c. The Risk and protective factors in children of various ages
 - d. The psychological needs of children following disaster

7. **The psychological impact of terrorism, and the threat of weapons of mass destruction/disruption:**
 - a. Principles of disaster psychology in acts of terrorism
 - b. Principles guiding the management of psychiatric consequences of terrorist act
 - c. People adapt to fears of premature death according to the principles of Terror Management Theory
 - d. WMD and ‘conventional’ terrorism and related psychological implications
 - e. Preparedness’ in mitigating the psychological as well as material toll of WMD

Reference

Pyszczynski, T. A., Sheldon S. and Greenberg, J. (2003). *In the wake of 9/11: The psychology of terror*. American Psychological Association, Washington DC, 20002

DMC-411: Corporate Social Responsibility

Course Objectives:

The course is designed 1) to develop the knowledge on the development, 2) to inform the different components of CSR and 3) to develop the students’ understanding ability about the strengths and weaknesses in a company’s or organization CSR work.

Course Contents:

1. Basic concept of Corporate Social Responsibility (CSR). The methods and tools within CSR, CSR and Sustainable Development, Corporate Citizenship, Business Ethics, Codes of Conduct and ISO 26000. The good and bad examples of how companies work with CSR. The course is appropriate for all with an interest in the ethics and responsibilities of companies, including those actively working with these issues in their professional careers.
2. The Corporation
3. Internal Organization, Politics and Tensions in the Corporation
4. Community Social Organization and its Local Representation
5. Host Country Local, Regional Networks and NGOs
6. International NGOs and Advocates
7. Standards, Monitoring and Accountability
8. Campaigns
9. The state and media
10. The Negotiating Table
11. The CSR Professional

References

Micklethwait, John and Wooldridge, Adrian, *The Company, A Short History of a Revolutionary Idea*, (The Modern Library, 2003): pages: Introduction; 101-136; 161-179.

Yaron, Gil, *The Corporation Inside and Out: How and why corporations affect us all – and what you can do about it*, (The Aurora Institute, 2002): pages 6-8; 20.

Hamilton, Trina, "Breaking the Brand: The Social Regulation of Multinational Corporations," (Ph.D. dissertation, Clark University, Worcester, MA, 2006): pages: 1-7; 18 (Theorizing Responsibility)-23; 27 (Responsiveness versus Responsibility)-33; 64-65 (top); 111-149.

Bird, Matthew and Kanter, Rosabeth Moss, "Procter and Gamble Brazil (A): 2 ½ Turnarounds," (Harvard Business School, January 17th 2008).

Haglund, Christina, "A River Turns Black," Dignity and Defiance, edited by Jim Schultz and Melissa Crane Draper (University of California Press, 2009).

Power, Tony, "Incorporated Land Groups in Papua New Guinea," Making Land Work, (vol. 2., no date).

Armstrong, Kit, "ChevronTexaco in the Southern Highlands Province, Papua New Guinea," The Oil Industry: Operating in Sensitive Environments, (no date).

Daluz, Tyler, "WonderProducts and ProPoor: Does Business Alleviate or Compound Poverty?" (New York City, 2009). Please read the entire document. Bell et al. "Vegpro Group: Growing in Harmony," (Harvard Business School, December 6, 2007).

Dewinter-Schmidt, Rebecca, "Business as Usual? The Mobilization of the Anti-Sweatshop Movement and the Social Construction of Corporate Identity," (Ph.D. dissertation, School of International Service of American University, 2007), pages: 1-35; 51-73; 89-110; 114-181; 190-200; 214-283; 299-324; 541-569.

Esty et al, "The Equator Principles: An Industry Approach to Managing Environmental and Social Risks," (Harvard Business School, January 30th, 2007).

Chhabara, Rajesh, "Message Lost in the Crowd?" Ethical Corporation, (May 2009).

"United Nations Millennium Declaration", also known as the "Millennium Development Goals," (United Nations General Assembly, Fifty-fifth session Agenda item 60 (b), September 18, 2000). www.un.org/millenniumgoals/

"Corporate Citizenship in the World Economy, The UN Global Compact," (United Nations Global Compact Office, October 2008). www.unglobalcompact.org/AboutTheGC/TheTenPrinciples/index.html

Hamilton, Trina, Op. cit., pages: 7 (History of the Corporate Campaign)-18; 36 (Defining a Campaign)-38; 65-99; 187-201.

SIGWatch, "Where are NGOs concentrating their campaigning resources? An analysis of current NGO campaigning across the globe," (2009).

Migdal, Joel S., et. al., "New Directions in Comparative Politics," edited by Wiarda, Howard J., (Westview Press, 1985): pages: 41-55; 88-94; 102-134.

Chambers, Rachel, "The *Unocal* Settlement: Implications for the Developing Law on Corporate Complicity in Human Rights Abuses," (Human Rights Brief, 13(1), 2005).

Barton, Brooke D., "A Global/Local Approach to Conflict Resolution in the Mining Sector: The Case of the Tintaya Dialogue Table," (Unpublished MA thesis, Tufts University, 2005).

Delgadillo, Monica Castro and Daphne, Hewitt, "Key Factors for Successful Community-Corporate Partnerships - Results of a Comparative Analysis among Latin American

Cases," (Rainforest Alliance and Global Consultants in Sustainable Development SRL, May 2009).

Zadeck, Simon, "The Path to Corporate Responsibility," Harvard Business Review, (December 2004).

Falck, Oliver and Stephen Hebllich, "Corporate Social Responsibility: Doing Well by Doing Good," (*Business Horizons*, vol. 50, 2007).

Manby, Bronwen, "The Price of Oil: Corporate Responsibility and Human Rights Violations in Nigeria's Oil Producing Communities," (Human Rights Watch, January 1999).

Morrissey, et al., "Peace and Security in the Niger Delta" (WAC Global Services, December 2003).

Collins, James C. and Porras, Jerry I., *Built to Last: Successful Habits of Visionary Companies*, (HarperBusiness Essentials, 1994).

DMC-412: Internship

4 Credits