GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
Sector – 16C Dwarka, New Delhi – 110078
(Coordination Branch)

F.No. IPU/JR(C)/44th AC/2018/454 Dated:04/07/2018

Circular

The 44th meeting of the Academic Council of the University was held on 03/05/2018. Please find enclose herewith the proceedings of the 44th meeting of the Academic Council for kind information.

(Registrar)
coordination112@gmail.com

F.No. IPU/JR(C)/44th AC /2018/ Dated:04/07/2018

1) All Deans and Directors of Guru Gobind Singh Indraprastha University
2) Prof. Sanjiv Mittal, Professor, University School of Management Studies
3) Prof. U.K. Mandal, Professor, University School of Chemical Technology
4) Prof. Udayan Ghose, Professor, University School of Information Communication & Technology
5) Dr. Nimisha Sharma, Associate Professor University School of Biotechnology
6) Dr. Gulshan Kumar, Asst. Professor, University School of Basic and Applied Science.

Copy for kind information of the competent authority:
(i) AR to the Vice Chancellor GGSIP University
(ii) SO to the Pro-Vice Chancellor GGSIP University
(iii) AR to the Registrar GGSIP University

(Registrar)
coordination112@gmail.com

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

SECTOR – 16 C, DWARKA, NEW DELHI - 110078

GURU GOBIND SINGH
INDRAPRASTHA
UNIVERSITY

FORTY FOURTH MEETING OF THE ACADEMIC COUNCIL

DATE : 03rd May, 2018 (Thursday)

TIME : 03.30 P.M. Onwards

VENUE: (Conference hall, Vice Chancellor's Secretariat)

PROCEEDINGS OF 44th ACADEMIC COUNCIL MEETING

INDEX OF PROCEEDINGS

10	AC44.10	To ratify (i)Syllabus of M.Tech. (Bio Chemical Engg.) for B.Tech./M.Tech.(Bio-Chemical Engineering/Dual Degree Programme (ii) minor modification of Chemical Engg. Courses, being taught at the University School of Biotechnology for B.Tech. (Biotechnology) students, implemented from the Academic Session 2017-2018.	11
11	AC44.11	To consider and approve the harmonization of evaluation structure of LLM (Regular) programme, offered by University School of Law and Legal Studies in accordance with existing norms of Ordinance -11 of the University.	11
12	AC44.12	To consider and approve the harmonization of the Paper Code and Paper ID of Subjects being taught in LLM programme of One year duration offered by University School of Law and Legal Studies.	11
13	AC44.13	To consider and approve the Syllabus, Curriculum, Evaluation Scheme, CET Syllabus and Eligibility Criteria for, Post Basic B.Sc. Nursing Programme to be implemented from the Academic Session 2018-2019.	12
14	AC44.14	To ratify the change in Curriculum of M.Phil. Clinical Psychology programme, implemented from the Academic Session 2017-2018.	12
15	AC44.15	To ratify the minor modification of Ph.D. Course work, offered by University School of Biotechnology, implemented from the Academic Session 2017-2018.	13
16	AC44.16	To ratify the Scheme of Examination and syllabi of Ph.D. Course work, offered by University School of Basic and Applied Sciences, implemented from the Academic Session 2017-2018.	13
17	AC44.17	To ratify the Ph.D. course work, offered by University School of Environment Management, implemented from the Academic Session 2017-2018.	13
18	AC44.18	To consider and approve the recommendations with respect to the grievance of B.Tech. programme students for mandatory papers.	14
19	AC44.19	To ratify the Admission Brochure of the University for the Academic Session 2018-19, Part-A containing details of various Programmes being offered, CET form filling Procedure, CET (s) to be conducted, eligibility conditions, syllabus of CET (s), Counselling Procedures etc., Part-B containing various Appendices, Part-C Counselling Schedule Summary and Part-D Refund Policy .	14

20	AC44.20	To consider and approve the Course outline and Scheme of Examination and detailed Course content of the three year Bachelor of Arts (Honours) English Programme to be implemented from the Academic Session 2018-2019 in various affiliated institutions of the University.	14-15
21	AC44.21	To consider and approve the adoption of the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in the Universities and colleges and measures for the Maintenance of Standards in Higher Education)(4th Amendment),Regulations,2016 ,notified vide the University Grants Commission notification no.F1-/2016 (PS/Amendment), New Delhi, dated 11th July,2016.	15
22	AC44.22	To consider and approve the Ph.D. Course work offered at University School Information Communication & Technology from the Academic Session 2018-2019 onwards.	15
23	AC44.23	To ratify the Ph.D. Course work offered at University School Information Communication & Technology from the Academic Session 2017-2018 onwards.	15
24	AC44.24	To consider and approve number of credits for the award of B.Voc Printing Technology.	16
25	AC44.25	To consider and approve the change in subject codes of the subjects named as (a) Data Communication and Networks (6th Semester Instrumental and Control Engg) from ETEC 310 - ETIC -312 applicable for batch 2015-2016 onwards for B.Tech. in Affiliated Institutions.	16
26	AC44.26	To consider and approve the suggestions regarding issue of Diploma, Advance Diploma and B. Voc as deliberated by the committee under the chairmanship of Controller of Examinations (O).	16
27	AC44.27	To consider and approve (i) Introduction of two new electives on basic and advanced entrepreneurship as a part of the M.Tech.(Biotechnology) Scheme and curriculum 2016, to be implemented from the Academic Session 2018-2019. (ii) The minor corrections in the course codes as incorporated in the B.Tech.(Biotechnology) Curriculum (2016 scheme) in the subjects taught by the University School of Basic & Applied Sciences as per the original course codes approved by the Board of School of Studies of USBAS.(The remaining scheme and course contents shall remain the same).	17

28	AC44.28	To consider and approve the revised Course Content, (Syllabus) of MBA (Disaster Management) Weekend Programme, offered by Centre for Disaster Management Studies, to be implemented from Academic	17
29	AC44.29	To co-opt maximum 10 expert members for their special knowledge as per the provisions of Statute 11 Sub-Section (viii) of Section (1) of the Guru Gobind Singh Indraprastha University Act to be members of the Academic Council.	18
30	AC44.30	To consider and approve the regulations under Ordinance 12 for programmes leading to the Degree of Doctor of Philosophy (Ph.D.)	18

Agenda Item No.AC44.27: To consider and approve:

(i)Introduction of two new electives on Basic of Entrepreneurship and Advanced Entrepreneurship as a part of the M.Tech.(Biotechnology) in USBT Scheme and curriculum 2016, to be implemented from the Academic Session 2018-2019.

(ii)The minor corrections in the course codes as incorporated in the B.Tech. (Biotechnology) Curriculum (2016 scheme) in the subjects taught by the University School of Basic & Applied Sciences as per the original course codes approved by the Board of School of Studies of USBAS.(The remaining scheme and course contents shall remain the same).

The Academic Council deliberated on the proposal and approved the

(i) Introduction of two new electives on Basic of Entrepreneurship(BT-527) and Advanced Entrepreneurship (BT-526) as a part of the M.Tech. (Biotechnology) Scheme and Curriculum 2016, to be implemented from the Academic Session 2018-2019.

(ii) The minor corrections in the course codes as incorporated in the B.Tech. (Biotechnology) Curriculum (2016 scheme) in the subjects taught by the University School of Basic & Applied Sciences as per the original course codes.(The remaining scheme and course contents shall remain the same).

Course codes and Revised Course codes as per 2016 scheme.

Course Codes (2016 Scheme)	Corrected/Revised Course Codes (2016 Scheme)	Subject Name (s)
BA-136	BA-132	Essential of Mathematics – II
BA-138	BA-136	Foundation Course in Organic Chemistry-II
BA-132	BA-138	Foundation Course in Physics – II

Details annexed as Annexure –XXII, page (XXII-01 to XXII-03).

Agenda Item No.AC44.28:To consider and approve the revised Course Content, (Syllabus) of MBA (Disaster Management) Weekend Programme, offered by Centre for Disaster Management Studies, to be implemented from Academic Session 2018-2019 onwards.

The Academic Council considered and approved the revised Scheme of examination of Semester I,II,III,IV and Syllabus for the three semesters (I,II,III), of MBA (Disaster Management) Weekend Programme, offered by Centre for Disaster Management Studies, to be implemented from Academic Session 2018-2019 onwards.

The admission criteria will remain same as in the past for this programme and the evaluation scheme would be as per the University norms.The programme shall be offered by Centre for Disaster Management Studies.

The approved Scheme of examination of Semester I,II,III,IV and Syllabus for the three semesters(I,II,III),of MBA (Disaster Management) Weekend Programme annexed as Annexure –XXIII,page(XXIII-01 to XXIII-04).

Syllabi and Scheme of Examination

for

M.B.A. (Disaster Management) Weekend Programme

(With effect from August, 2018)

Centre for Disaster Management Studies
Guru Gobind Singh Indraprastha University
Dwarka, New Delhi - 110078

Employability/Skill Development/Entrepreneurship

Approved in the 44th meeting of the Academic Council vide agenda item 44.28 w.e.f. 2018

Vision

- To be the leading Centre of Excellence for the Disaster Management education and research in the country.

Mission

- To effectively prepare for and respond to disasters, manage recovery and mitigation efforts in India through training and capacity development of personnel in collaboration with other stakeholders

Programme Outcome (PO):

The students **of** M.B.A. (Disaster Management) are expected:

PO1: To remember the conceptual knowledge with an integrated approach to various functions of disaster management.

PO2: To analyze and apply research and analytical skills in business decision making.

PO3: To demonstrate the skills of organizing, planning, controlling, and team-building and leadership in the challenging environments of Disaster Management.

PO4: To apply the various concepts, theories and models in the area of Disaster Risk Reduction, Disaster Prevention and Disaster Response and Rehabilitation etc.

Program Specific Outcomes (PSO):

PSO1: Acquire Practical learning opportunity through summer internship, industrial visit and research projects.

PSO2: Apply in-depth knowledge in their core elective area of specialization like Finance, Marketing, Human Resource, area of Disaster Risk Reduction, Disaster Prevention and Disaster Response and Rehabilitation etc. to solve the complex challenges in disaster situations.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
M.B.A. (Disaster Management) Syllabus *w.e.f.* 2018 Batch
Weekend Programme
First Semester (Credit: 24)

Course Code	Course Title	Credits (Lecture + Tutorial)	Core/Ability Enhancement/ Inter-Disciplinary
THEORY			
DMW 101	Disasters : Natural and Human Induced Disasters	3 + 1	Core
DMW 103	Disaster Management Governance, Law and Policies – International and National	2 + 1	Core
DMW 105	Risk and Vulnerability Assessment in Disaster Management	2+1	Inter-Disciplinary
DMW 107	Principles of Management and Organizational Behaviour	2	Core
DMW 109	Disaster Management Framework atNational and International perspective	2	Inter-Disciplinary
DMW 111	Psycho-social Perspectives in Disaster Management	2	Core + Ability Enhancement
DMW 113	Geoinformatics Application in Disaster Management – 1	2 + 1	Ability Enhancement
DMW 115	Term Paper I*	2	
PRACTICAL			
DMW 151	Geoinformatics Application in Disaster Management - 1 (Lab.)	1	
DMW 153	Training/Field Visits to Disaster Sites/ Vulnerable Areas/ DM Centres/Institutes & Presentation (3 to 5 Days) - I	2	
	Total :	**24**	

Non-University Examination System

Second Semester (Credits: 26)

Course Code	Course Title	Credits (Lecture + Tutorial)	Core/ Ability Enhancement/ Inter-Disciplinary
THEORY			
DMW 102	Media & Information Management in Disaster	2	Core
DMW 104	Quantitative Techniques and Research Methodology in Disaster Management	2+1	Core
DMW 106	Public Health in Disaster Management	2	Core
DMW 108	Crisis Management	2	Inter-Disciplinary
DMW 110	Applications of Geoinformatics in Disaster Management 2	2+1	Inter-Disciplinary
DMW 112	Financial Aspects of Disaster Management	2	Inter-Disciplinary
DMW 114	Fire Risk, Safety And Response	2	Core
DMW 116	Incident Response System*	2	Inter-Disciplinary
DMW 118	Term Paper II*	2	
PRACTICAL			
DMW 152	Quantitative Techniques and Research Methodology in Disaster Management (Lab.)	1	
DMW 154	Applications of Geoinformatics in Disaster Management (Lab.)	1	
DMW 156	Table Top and Mock Exercises based on Incident Response System	2	
DMW 158	Training/Field Visits to Disaster Sites/ Vulnerable Areas/ DM Centres/Institutes & Presentation (3 to 5 Days) - II	2	
	Total :	**26**	

Non-University Examination System

Third Semester (Credit: 28)

Course Code	Course Title	Credits (Lecture + Tutorial)	Core/ Ability Enhancement/ Inter-Disciplinary
THEORY			
DMW 201	Industrial Security, Safety and Disaster Risk Reduction	2	Core
DMW 203	Role of EIA, Environmental Policyincluding PDNA in Disaster Risk Management	2 + 1	Inter-Disciplinary
DMW 205	Communication and Early Warning Systems in Disaster Management	2+1	Core + Ability Enhancement
DMW 207	Cyber Terrorism and Security	2	Inter-Disciplinary
DMW 209	Environment, Climate Change and DRR	2	Inter-Disciplinary
DMW 211	Community Based Disaster Preparedness (CBDP)	2	Core
DMW 213	Supply Chain Management in Disaster	2	Core + Ability Enhancement
DMW 215	Minor Project Work*/DMPs and Presentation	6	
DMW 217	Seminar/ Workshop/Conference	2	
PRACTICAL			
DMW 251	Cyber Terrorism and Security	1	
DMW 253	Communication and Early Warning Systems in Disaster Management (Lab.)	1	
DMW 255	Training/Field Visits to Disaster Sites/ Vulnerable Areas/ DM Centres/Institutes & Presentation (3 to 5 Days) -III	2	
	Total :	**28**	

Non-University Examination System.

Fourth Semester (Credit: 36)

Course Code	Course Title	Credits (Lecture + Tutorial)	Core/ Ability Enhancement/ Inter-Disciplinary
DMW 202	Seminar and Progress Reports*	4	
DMW 204	Dissertation*	24	
DMW 206	Dissertation presentation and Viva Voce*	8	
	Total :	**36**	

***Non-University Examination System**

Note:

1. Total number of credits for Programme MBA (Disaster Management) = 114
   a) First Semester number of credits = 24
   b) Second Semester number of credits = 26
   c) Third Semester number of credits = 28
   d) Fourth Semester number of credits=36 (Approved in 2012)
2. Each student shall be required to appear for examination in all courses. However, for the award of the degree, a student shall be required to earn a minimum of 100 credits.

Fees Structure (Rs.): 75000/- + 6000/- (one Time at the time of Admission)

No. of Seats : 60

Merit List Criteria: Admission will be provided based on academic record, professional experience and personal interview.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Disasters: Natural & Human Induced Disasters

Course Code: DMW 101 L -3 T-1 C-4

Course Outcome

CO 1: Students will be able to identify the major hazards having diverse nature.

CO 2: Students will be able to understand fundamentals of natural and human-induced hazards.

CO 3: The Students will be able to apply comprehensive knowledge about the types, causes, mechanism of occurrence, and spatial variability of hazards and disasters to manage such occurrences.

C0 4: Students will be able to formulate innovative management strategies to mitigate disasters.

Unit 1

Types of natural and human induced disasters as described by the High Powered Committee. Disaster Management Cycle, Disaster Profile of India

Unit 2

Earthquakes

Understanding structure of earth, formation of core, mantle and crust, Tectonic plates. How are Earthquakes caused and their effects, predictions, seismic zones, seismic waves, epicenter, focus, magnitude, intensity, vulnerability and damage potential, Geological and geographical analysis.

Landslides & Avalanche

Causes, Tectonic conditions, erosion rock fall, damage assessment, landslides prevention, mitigation and management. Avalanches: formulation, types, hazard mitigation and management.

Volcano

Causes, hazard monitoring and mitigation

Unit 3

Floods: Floods cause, vulnerabilty, types of floods, impact of flood, Flood management (Mitigation, Preparedness and Response). Urban floods.

Cyclones and Tsunami: Difference between Cyclone, Typhoon and hurricanes, Structure, formulation conditions, monitoring / tracking and its damage impact on landfall, How Tsunamis are caused, characteristics, hazard zonation, factors, hazard potential and impact assessment of cyclones and tsunami, coastal zone management, Early warning system for Cyclones and Tsunamis.

Drought

Causes, Vulnerability, types of famines, deserts, and desertification, Drought affected areas and drought management in India.

Unit 4

Industrial, chemical and hazardous material disasters, urban forces building collapse, stampede, road, rail, air and boat capsize disasters, Forest fires, coal mine fires and religious congregation disasters.Terrorism related disasters, Indiscriminate firing, bomb blast, hoax calls, hostage taking & rescue, selective shooting of leaders, etc.

References

1. Khanna B K Brig (Dr.), "All you wanted to learn about disasters, "New India Publishing Agencies, New Delhi, 2005.
2. Khanna B K Brig. (Dr.) - , "Perils of under preparedness in Sikkim earthquake, IDSA, New Delhi, 2014.
3. William H. Dennen and Bruce R. Moore, Geology and Engineering ,WCB Publishers, Iowa, 1986.
4. John M. Wallace and Peter V. Hobbs, Atmospheric Science: An Introductory Survey, Academic Press, New York, 1977.
5. EgbortBocker and Rienk Van Grondille, Environmental Physics, John Wiley & Sons Ltd., 1999.
6. Barbar W. Murk et. al., Environmental Geology, John Wiley & Sons, New York, 1996.
7. Bohle, H. G., Downing, T. E. and Watts, M. J. Climate change and social vulnerability: the sociology and geography of food insecurity, Global Environmental Change. No.4, pp. 37-48.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Disaster Management Governance, Law and Policies – International and National

Course Code: DMW 103 L -2 T-1 C-3

Course Outcome

CO 1: This course is aimed to provide students an in-depth knowledge about the various humanitarian, institutional and legal initiatives taken to mitigate disasters at global, national and local level.

CO 2: This course is aimed at promoting a culture of prevention, preparedness and resilience at all levels through knowledge, innovation and education.

CO 3: This course is aimed at enabling the students to undertake reconstruction as an opportunity to build disaster resilient structures and habitat for ensuring safer living.

Unit 1: **LegalFramework for Disaster management in India**

Constitution of India, Important statutes with provisions relevant to Disaster Management: Role of legislationsin Disaster Management, Scope of Disaster ManagementLaw with reference to DisasterManagement Act, EssentialServices Maintenance Act, Environment Protection Act, 1986, including HazardousSubstances Rules, Explosives Act, 1872, Explosive Substances Act, 1908, AtomicEnergy Act, 1962, Factories Act, 1948, Petroleum Act 1934, Chemical Accident, 1996.

Unit 2: Disaster Management Act 2005. NDMA,NIDM, SDMAs, DDMAs, Nodal Ministry/ Coordination of Response, NDRF, SDRF, Armed Forces, CAPFs, Local Fire and Emergency Services, their constitution, roles and responsibilities. DM at local level.Penalties for defaulters.National Disaster Management Plan, 2016, National Disaster Management Policy, 2009.

Unit 3: National and State Disaster Response Funds, Flexi Funds, Mainstreaming of Disaster Management into development Plan, Corporate Social Responsibility , Provision under MPLADS Scheme, and Inclusion of disaster risk reduction aspects in all developmental activities by good governance

Unit 4: International Initiatives by UN, International Decade for Disaster Risk Reduction, Yokohama Strategy, Hyogo Framework for Disaster Risk Reduction (2005-2013), Sendai Framework (2013- 2030); Sustainable development Goals, COP, Section 135 of Company Act 2016 India – Corporate Social Responsibility, its scope, utility and initiative taken for DRR

References

1. Disaster Management Act 2005
2. National DM Policy – 2009
3. Hyogo Framework for Action 2005- 2015
4. Sendai Framework for DRR (2015- 2030)
5. UNISDR-ARISE- 2015
6. International Humanitarian Law, Larry May Bee, Banerjee, Chakka

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Risk and Vulnerability Assessment in Disaster Management

Course Code: DMW 105 L -2 T-1 C-3

Course Outcome

CO 1: This course aims to deliberate on various physical, social, economic, and environmental aspects of vulnerability.

CO 2: The learners are expected to have an understanding of the vulnerability concept and various approaches of vulnerability assessment.

CO 3: This course will help the students in knowing about the current status, gaps and challenges in disaster risk assessment.

CO 4: During this course students will get awareness about the important components (hazard, vulnerability, and exposure) of disaster risk assessment.

Unit 1

Introduction to Risk and Vulnerability Assessment, Definition of hazard, risk and vulnerability, relations between them, Fundamentals of risk analysis, environmental hazards, exposure and risk assessment, risk evaluation and management; basic methodology in risk assessment, hazard and vulnerability identification – response assessment, exposure assessment and risk characterization.

Unit 2

Assessment of risks for different disaster types, extremes event analysis, hazard ecology, chemical load & environmental health risk, carcinogenic materials and environment, impact on immune system, reproduction and nervous system, risk adjustment, choice and loss acceptance (acceptable risk), spectacular deaths and carcinogens

Unit 3

Vulnerability, types of vulnerabilities, vulnerability assessment and mitigation

Unit 4

Collection of Data and Design of Risk Management Program, Quantified risk assessment for industrial accidents, release of toxic products, dispersion analysis and HAZOP study, Risk assessment applications for disaster mitigation and management problems. Methodology of stock taking, concept of vulnerability and Analysis, exposure, preparedness, prevention and response analysis for risk Management Programme

References:

1. Freeman, H. M. (ed.), 1989, Standard Handbook of Hazardous Waste treatmentand Disposal, McGraw H, New York.
2. William, P. L.; and J. L. Burson, 1985, Industrial Toxicology, Safety and HealthApplications in the work place, Van Nostrand Reinhold, New York.
3. Willson , R; and E. A. C.Crouch, 1987, Risk assessment and comparisons: An Introduction, Science 17, 1987, pp 267-270.
4. Petak, W. J. and Atkisson, A, A. Natural Hazard Risk Assessment and Public Policy: Anticipating and Unexpected, Springer; New York. 1982.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Principles of Management at Organizational Behaviour

Course Code: DMW 107 L -2 T-0 C-2

Course Outcome

CO 1: The course aims at providing some basic knowledge of the major principles and dominating theories and paradigms in management (contemporary management and marketing) and organization.

CO 2: The course aims at developing the students' capacity to understand the roles and major characteristics of individuals, groups and systems in organizations.

UNIT 1

Human relation management Theory, Behavior Science approach, Management science theory, Contemporary management approach

UNIT 2

Planning:–organization goal, Strategy, Standing use plans and single use plan, co-ordinate and integrate resources

Organizing: - process, principle, authority and responsibility, organization charts, graphic representation.

UNIT 3

Leadership: Early approaches, contingency theories, other leadership approaches, Effective leadership, Theories of motivation

Controlling:- Define and specify critical goals, appropriate standards, compare performance with standards, make corrections

UNIT 4

Decision making: - Organizational decisions, basic theories, logical reasoning process, Creative thinking

Managing change: - Effective change management, tactics for dealing with resistance to change. Different models of management

References/Text

1. Pareek, U. (2007) Understanding OrganisationalBehaviour New Delhi Oxford University Press
2. James A.F. , Stoner, R. . Gilbert, D.R., (1995) Management. , 6th edition, Prentice Hall, Inc.,
3. Luthans, F. (2002) . Organizational Behaviour, 9th edition, New Delhi: Tata McGraw Hill

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Disaster Management Framework at National and Internationalperspectives

Course Code: DMW 109 L -2 T-0 C-2

Course Outcome

CO 1: The student will assimilate the vision enshrined in the National Policy on Disaster Management is to build a safer and disaster resilient India by a holistic, pro-active, technology driven and sustainable development strategy that involves all stakeholders and fosters a culture of prevention, preparedness and mitigation.
CO 2: The student will get through knowledge about National policy on Disaster Management.

Unit 1

Disaster Management Framework at Centre, National Disaster Management Authority (NDMA), Cabinet Committee on Security (CCS), Cabinet Committee on Management, National Executive Committee, Crisis Management Committee, High level Nodal Ministries for managing disasters, Para-Military Forces (PMFs), Armed Forces, International, National or Global Observing System(GOS) – Constitution, roles and responsibilities of each stake holders

Unit 2

Disaster Framework at State Level, Constitution of States Disaster Management Authority (SDMA),Its role, responsibilities, State Executive Committee (SEC), Police, Fire Services, Medical Services, State Disaster Response Force (SDRF), local NGOs and Private Sector, etc.

Unit 3

Disaster Management Framework at District & Local level, Constitution of DDMAs, roles& responsibilities of NDRF, Police, Fire Services, Medical Services, Civil Defence, Home Guards, Municipal Corporation, NCC, NYK, NSS, Volunteers, etc. – Role of each stakeholder.

Unit 4

Disaster Management Framework at Select Countries, USA, UK, Japan, South Africa, Bangladesh and Indonesia.NDMA Guidelines on Disaster Management Plan.

References:

1. Collins Larry R. and Schneid Thomas D., Disaster Management and PreparednessTaylor and Francis 2000
2. Goel S.L. and Kumar Ram, Disaster Management, Deep and Deep Publications,2001
3. Living With Risk: A global Review Of Disaster Reduction Initiatives 2004
Vision, United Nations, 2004.
4. Parasuraman S., India Disasters Report: Towards a Policy Initiatives, OxfordUniversity Press, 2004.
5. Arnold, Margaret and Kreimer, Alcira (eds.), "Managing Disaster Risk in Emerging Economies", Disaster Risk Management Series No. 2, WorldBank, Washington, D.C., 2000.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)
Psycho-social Perspectives in Disaster Management

Course Code: DMW 111 L -2 T-0 C-2

Course Outcome

CO 1: The student will understand the context of disasters refers to comprehensive interventions aimed at addressing a wide range of psychosocial and mental health problems arising in the aftermath of disasters.
CO 2: The student will get through the knowledge about different psycho-social and mental health problems arising after any disaster.

Unit1:

Identifying Socio-Psychological Needs in Mass Emergency: Global assessment of Needs and Priorities, Area specific requirements, Psychological Characteristics of Disaster Management, Different psychological considerations in natural and manmade disasters. Impact of disasters on social fabric of the people living in the disaster prone areas, emotional stability and its recoupment.

Unit 2:

Training in Humanitarian Professionalism, Professionalism and Humanitarian Responses in Disaster Management, Short term support, Long term support, conducting workshops

Unit 3:

Community and Individual Empowerment: Disaster, Women and their Social Status, Gender Rights and Child rightsin the response system. Differently abled/Aged/Single, NDMA Guidelines on Psycho- Social support.Psychological Rehabilitation dealing with victim's Psychology, vulnerability of Social factors,integrating communities into disaster planning and policy making. Study of social domains and social factors.

Unit4:

Operative and Strategic Management: Role of NGOs and other agencies: National and International (UN,UNOCHA,UNISDR,UNISER,UNDP,WHO,FAO,IFRC,SAARC,ASEAN,UNFCC,FEMA, ADPC,OECD etc.), voluntary organization and non- government organizations and their role in Disaster Management. Social Action Groups, Advocacy initiative, Civil Society organizations, and social movements and their role in Disaster Management.Case studies of developing and developed countries.

References:

1. National Disaster Response Plan, NCDM, New Delhi, 2001

2. OHO Lerbinger, (1986), The Crisis Manager, Facing risk and responsibility, Lawrence Erlbaum associates.

3. Horowitz, M (1986), Stress response syndranes, Northvale, N.J. Armson.

4. Peter, K. Hodgkinson, (1998), Copying with Catastrophe, A handbook of post disaster psychological after care. Routledge.

5. KazimieraAdamowski (1998), Creating Excellence in Crisis Care, Johnwiley& Sons Inc.

6. Management: A Global Perspective, Weihrich, H. and Koontz, H., New York, McGraw Hill 2006

7. Disaster Management: A Disaster Managers Handbook, Carter, W. N., Manila, ADB, 2006

8. Mohanty, Ranjita and Prayag Mehta, NGOs and Civil Society, New Delhi: Sanskriti, 2002

9. Siwach, Raj Kumar Voluntary Organizations and Social Welfare, Shanker Publication, Delhi, 2004

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Geoinformatics Application in Disaster Management- 1

Course Code: DMW 113 L -2 T-1 C-2

Course Outcome

CO 1: In this course students will assimilate knowledge of all the domains with respect to the application of Geo-informatics in disaster management.
CO 2: In this course students will get hands-on experience on how the analysis of satellite data and GIS could help in retrieving essential information for disaster risk reduction.
CO 3: In this course students will identify the damage and loss assessment associated with a particular disaster; and mapping pre and post disaster scenarios would also be covered.

Unit 1:

Introduction to Remote Sensing (RS): Definition, basics, principles and types of remote sensing, passive & active remote sensing, electromagnetic spectrum, atmospheric effects, history of remote sensing, resolution types, EMR interaction, spectral signatures, satellite image interpretation based on supervised and unsupervised classification

Unit 2:

Platforms, Sensors and Satellites

Platform types: Ground, aerial and space based. Orbits, remote sensing sensors. Characteristics of LISS, Landsat, SPOT, IRS, ERS, Radarsat,cartosat, MODIS images and other operational remote sensing satellites. Fundamental of Satellite based positioning and navigation systems (GPS) and their usefulness in disaster management, spatial data sources available online for disaster management, introduction to shapefiles, Geodatabase, .img, .GRID, .dxf, .dwg etc. spatial data formats.

Unit 3:

Geographic Information System (GIS): Basic, principles and components of GIS, spatial information and spatial data types, geographic phenomena, geographic field, geographic objects and boundaries. Components of vector and raster data, spatial & 3D analysis spatial queries, Map projections, coordinate systems, datum, spheroid. Commercially available image processing and GIS software.

Unit 4:

Applications of RS/GIS with Case Studies: Geospatial technology for disaster management, land use/land cover mapping

References:

1. Jensen, John R. 2009. Remote Sensing of the Environment: An Earth Resource Perspective, 2nd Edition. Dorling Kindersley.

2. Joseph, George. 2005. Fundamentals of Remote Sensing, 2nd Edition. University Press India.

3. Lillisand, Thomas, Ralph W. Kiefer and Jonathan Chipman. 2007. Remote Sensing and Image Interpretation. Wiley India. 18

4. Sabins, Floyd F. 2007. Remote Sensing: Principle and Interpretation. Waveland Press.

5. Jensen, John R. 2004. Introductory Digital Image Processing: A Remote Sensing Perspective. Prentice Hall.

6. Janssen, Lucas L.F., and Grrit C. Huurneman. 2001. Principle of Remote Sensing. ITC Educational Text Book series 2.International Institute of Geoinformation Science and Earth Observation (ITC).Enschede.

7. Lo, C.P., and Albert K.W. Yeung. 2009. Concepts and Techniques of Geographic Information Systems, 2nd Edition. PHI Learning.

8. Longley, Paul A., Michael F. Goodchild, David J. Maguire and David W. Rhind. 2005. Geographic Information System and Science, 2nd Edition. John Wiley and Sons.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Term Paper I*

Course Code: DMW 115 L -0 T-0 C-2

Non-University Examination System.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Geoinformatics Application in Disaster Management- 1 (Lab.)

Course Code: DMW 151 L -0 T-0 P-1 C-1

Course Outcome

In this course students will get hands-on experience on how the analysis of satellite data and GIS could help in retrieving essential information for disaster risk reduction.

Based on Syllabus of Theory Paper DMW 113

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Training/ Field Visits to Disaster Sites/ Vulnerable Areas/DM Centres/Institutes & Presentation (3 to 5 Days) - I

Course Code: DMW 153 L -0 T-1 C-1

Course Outcome

The course involves the field visit of students to different disaster sites or vulnerable areas to understand the real-life problems faced by the people.

Training/ Field Visits to Disaster Sites/ Vulnerable Areas/DM Centers/Institutes & Presentation (3 to 5 Days) - I

SECOND SEMESTER

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Media & Information Management in Disaster

Course Code: DMW 102 L -2 T-0 C-2

Course Outcome

The students will learn that the media plays a vital role in the management of disasters by educating people about consequences, hazard warnings, gathering and transmitting information about affected areas and also alerting the government for rescue and relief.

Unit I: Introduction to Media and Disaster Management

Disaster and Media, Types of Media (Print, Electronic, Social Media), Importance of Media, Media and Disaster Management, Community Engagement and Emergence of Green Media, Media Institutions and organizations.

Unit II: Media Research Methodology

Research and Management Techniques, Qualitative Methods in Research for Disaster Management, Quantitative Methods in Research for Disaster Management, empirical research for Disaster management .

Unit III: Media and Community Engagement

Traditional vs Virtual Communities, Youth, Media and Society for Disaster Management, Community, Media, Community Based Disaster Management and Capacity Building

Unit IV: Media and Contemporary Trends

New Media, Disaster Management and Activism, Cross/ acrossCountry Cooperation and Disaster Management, Factual and ethical reporting, Case studies-Role of media in Different phases of Disasters.

References:

1. Anderson, Alison. 'Environmental Activism and News Media', News, Public Relations and Power, Cottle, S(ed). Sage Publications, London, Thousand Oaks, New Delhi: 2003, pp. 117-132.
2. Antilla, L. (2005). Climate of scepticism: US newspaper coverage of climate change. Global Environmental Change, 15, 338-352.
3. Bell, A. (1991). Hot air: media, miscommunication, and the climate change issue. In N. Coupland, J. M.

Wiemann& H. Giles (Eds.), "Miscommunication" and problematic talk (pp. 259-282). Newbury Park,CA: Sage
4. Biermann, F and Boas I. 'Protecting Climate Refugees: The Case for a Global Protocol', Environment,November-December, 50 (6), 2008: 8-16.
5. Branston, Gill. 'The Planet at the End of the World: "Event" Cinema and the Representability of ClimateChange', New Review of Film and Television Studies 5.2 (2007): 211-31.
6. Boykoff, M. T. (2011). Who speaks for the climate?: making sense of media reporting on climate change.Cambridge University Press.
7. Carvalho, A., & Burgess, J. (2005). Cultural circuits of climate change in UK broadsheet newspapers,1985-2003, Risk Analysis, 25(6), 1457-1469.
8. Dirikx, A., &Gelders, D. (2008). Newspaper communication on global warming: Different approachesin the US and the EU? In Carvalho, A. (Ed.), Communicating Climate Change: Discourses, Mediations and Perceptions (pp. 98-109). Braga: Centro de Estudos de Comunicação e Sociedade, Universidade doMinho
9. Dispensa, J. M., &Brulle, R. J. (2003). Media's social construction of environmental issues: Focus onglobal warming - a comparative study. International Journal of Sociology and Social Policy, 23(10),74-105.
10. Hill, Sally. 'Models of online activism and their implications for democracy and climate change'.Foundation for Democracy and Sustainable Development, draft discussion paper, April 2010.Available online at: http://www.fdsd.org/2010/04/online-activism-democracy-and-climate-change

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Quantitative Techniques and Research Methodology in Disaster Management

Course Code: DMW 104 L -2 T-1 C-3

Course Outcome

CO 1: This course covers different input data sets and methods for disaster research. Considering the broad scope for research in disaster management and its importance as a means of disaster mitigation and preparedness

CO 2: This course will enhance the skills of the students to tackle the research works as well. The overarching aim of a quantitative research study is to classify features, count them, and construct statistical models in an attempt to explain what is observed.

Unit 1:

Introduction to quantitative techniques, probability and probability distribution (Binomial, Poisson and Gaussian distribution), Frequency distribution and graphical presentation of data, Measures of central tendency, dispersion.

Unit 2:

Introduction to research methods, terminology used in research, types, research philosophies, Decision problem and Research problem.characteristics of research, major types of research design, research approaches. research question and hypothesis formulation, report writing

Unit 3:

Scale of measurement: Nominal, Ordinal, Interval and Ratio, comparative and non comparative scaling technique, reliability and validity of scale.Questionnaire design: objectives, steps, pilot testing and sampling decision, probability and non- probability sampling techniques, sample size.

Unit 4

Hypothesis testing, steps of conducting hypothesis testing, parametric and non-parametric test like Z,T,F -Test and Chi square test, ANOVA.Correlation: Pearson, Spearman and Kendall's. Regression: assumption and application.

Reference:

1. Singleton.R.A.Jr, and Straits B. C. (1999). Approaches to Social Research. Oxford University Press, New York.
2. Moore, D.S. (1999). The Basic Practice of Statistics. W.H. Freedman, NY.
3. De Vaus, D.A. (1995). Surveys in Social Research. Allen &Unwin, Sydney, NSW, 1995.
4. Foddy, W. (1994). Constructing Questions for Interviews and Questionnaires. Cambridge University Press, Cambridge,.
5. Scarbrough E., E. Tanenbaum (1998) Research Strategies in the Social Sciences. Oxford University Press. Oxford.
6. Stallings (2013). Methods of Disaster Research. Xlibris Publication limited.
7. Bryman. A. (2003) Social Research Methods Oxford University Press, UK .
8. Dangi H. K. and Dewen. S. 2016) Business Research Methods. Cengage India Limited, New Delhi

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Public Health in Disaster Management

Course Code: DMW 106 L -2 T-0 C-2

Course Outcome

CO 1: This course aims to increase the knowledge and understanding of the disaster phenomenon, its different contextual aspects, impacts and public health consequences.

CO 2: This course aims to ensure skills and abilities to analyze potential effects of disasters and of the strategies and methods to deliver public health response to avert these effects.

Unit 1

Public health and its role in disaster management: health promotion and disaster prevention – integrated approach, Public health emergencies in disasters – water borne, vector borne and zoonotic diseases, avian flu, Ebola and Dengue etc. Mass casualties preparedness and management.

Unit 2

Disaster and First-aid, First-aid kit, Basic training in survival skills, Critical Care facilities for managing basic life support such as CPR. Training of first aid responders. Transport of wounded /Fractured patient, maintenance of Vitals, Principles of ABC (Airway, breathing & Circulation) and defibrillators

Unit 3

Preparation and knowledge skills in new health threats like bio-defense and bio- terrorism, epidemiology, pre hospital preparedness and adequate stock of medicines, management of temporary shelters, water and sanitation emergencies,clinical casualty management, Concept of potable water. Public health policies.

Unit 4

Case studies of medical and health intervention in disaster management, education, training in public health management, NDMA Guidelines on Hospital Safety, NDMA Guidelines on Medical Preparedness and Mass Casualty Management,Role of NGOs, Community Based Organizations (CBOs), Armed forces, educational institutions, professionals and technical groups and their coordination in health emergencies in disasters.

References:

1. NDMA Guidelines on Man Casualty Management and hospital preparation – 2006
2. NDMA guidelines on hospital Safety 2017.
3. NDMAGuidelines on Medical Preparedness and Mass Casualty Management,
4. Public Health Management of Disasters: The Practice Guide, Linda Young Landesman, American Public Health Association, 01-Oct-2005
5. NDMA Guidelines on Management of Biological Disasters

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Crisis Management

Course Code: DMW 108 L -2 T-0 C-2

Course Outcome

The students will get a thorough knowledge about crisis management. The objective of the course is to eliminate the potential harm and allow the organization to resume execution of its strategy. A good crisis management strategy aims to balance and protect all of a company's interests.

Unit 1:

Crisis: Definition, Difference between crisis, disasters and catastrophe. Crisis and emergency, Standard Operating Procedure.Types of crisis.Strategic perspective of crisis management, Cases related to major international and national crisis.

Unit 2:

Crisis Management Plan: Components of crisis management plan, Types of plan, Budget allocation, Preparation of crisis management plans.Global best practices.Business continuity plan

Unit 3:

Implementation of Crisis Management Plan: Team management, briefing, debriefing and crisis management problem solving approaches. Monitoring and Control approaches. Major cases related to crisis management plan implementation.

Unit 4:

Crisis Management Communication: emergence of new mode of communication, Importance of integrated crisis management communication, Media planning, Traditional (Print, TV, Radio) and Social media. Media management. Choice and effectiveness of media (pre, during and post crisis)

References:

Harvard Business Essential (2004) Crisis Management: Master the Skill to prevent Disasters. Harvard Business School Press
Mukhopadhyay (2005) Crisis and Disaster Management Turbulence and Aftermath. New Age International Publisher.
Fink (2000) Crisis Management: Planning for the inevitable, iUniverse.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)
Application of Geoinformatics in Disaster Management - 2

Course Code: DMW 110 L -1 T-2 C-3

Course Outcome

CO 1: The said course highlights all the domains with respect to the application of Geo-informatics in disaster management. Modern technologies such as Remote Sensing, GIS and GPS play an important role in disaster management.
CO 2: In this course students will get hands-on training about the use of satellite data, GIS and GPS in retrieve essential information for disaster risk reduction.
CO 3: The students will learn about damage and loss assessment associated with a particular disaster and mapping pre and post disaster scenarios.

Unit 1:

Image interpretation and GIS data models for Disaster Management: Digital image processing (DIP) techniques.Visualimage interpretation tools and techniques. Raster based GIS data processing with both regular and irregular tessellations, vector-based GIS data processing and topology, spatial relations, spatial analysis for disaster management studies.

Unit 2:

Weather Satellites and disaster management: Satellite missions for weather forecasting, monitoring and management of disasters. Climate and Meteorology related disaster management using Remote Sensing and GIS:glacial and coastal disaster management studies.

Unit 3:

Global Positioning Systems (GPS) and Disaster Management: Basic and principles of GPS, types of Survey of India (SOI) toposheets. Application of GPS in disaster management studies.

Unit 4:

Application of RS/GIS in Disaster Management withCaseStudies: Identification of suitable imagery for disaster management. Urban disaster, forest fire modelling, landslide hazard mapping, risk, vulnerability and elements at risk mapping, contingency planning using GIS, mining impact analysis mapping.

References:

1. Jensen, John R. 2009. Remote Sensing of the Environment: An Earth Resource Perspective, 2nd Edition. Dorling Kindersley.
2. Joseph, George. 2005. Fundamentals of Remote Sensing, 2nd Edition. University Press India.
3. Lillisand, Thomas, Ralph W. Kiefer and Jonathan Chipman. 2007. Remote Sensing and Image Interpretation. Wiley India. 18
4. Sabins, Floyd F. 2007. Remote Sensing: Principle and Interpretation. Waveland Press.
5. Jensen, John R. 2004. Introductory Digital Image Processing: A Remote Sensing Perspective. Prentice Hall.
6. Janssen, Lucas L.F., and Grrit C. Huurneman. 2001. Principle of Remote Sensing. ITC Educational Text Book series 2.International Institute of Geoinformation Science and Earth Observation (ITC).Enschede.
7. Lo, C.P., and Albert K.W. Yeung. 2009. Concepts and Techniques of Geographic Information Systems, 2nd Edition. PHI Learning.
8. Longley, Paul A., Michael F. Goodchild, David J. Maguire and David W. Rhind. 2005. Geographic Information System and Science, 2nd Edition. John Wiley and Sons.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)
Financial and Economic Aspects of Disaster Management

Course Code: DMW 112 L -2 T-0 C-2

Course Outcome

This course provides a procedure of making a comprehensive strategy which can secure access to post-disaster financing before an event strikes, ensuring rapid, cost-effective liquidity to finance recovery efforts. Disaster risk financing and insurance aims to increase the resilience of vulnerable countries against the financial impact of disasters.

Unit 1:- Conceptual Framework of Financial Aspects of Disaster Management
Requirement and Arrangement of Finance. DM built in Development plans. National Disaster Response and National Disaster Mitigation Fund, State and District level arrangements. Internal and External Aid.Responsibilities of Central Ministries and Departments.Financial Guidelines for Formulation of Mitigation plans. Promoting Immediate Mitigation. Measuring and Funding of Rehabilitation.

Unit2:- Introduction to Macroeconomic and Impact of Disaster on Development
Economic Structure: Fiscal Response to Public Finance and Budgetary Guidelines. Economic Management of Risk in Medium and Long term. Planning for Reallocation of Resources. National Investment Policy.Socio Economic Adaptation.

Unit 3:-Post disaster Economic Growth and Development Process
Long Term Impact of Extreme Hazard Events.Economic Consequences of Disaster. Development Strategies and Policy Implication of Growth. Structural Changes in Economic Activities.Reconstruction from Private Household Savings.Level and Role of External Assistance.Linkage and Multiplier effect. Technological Improvements and Human Resource Development. Planned Identified Post Disaster Projects.

Unit 4:- Risk Reduction Activities

Risk-Spreading and Transfer Mechanism. Structure of Insurance Industry.Weather derivatives in Capital Market.Appropriate Investment in Risk Reduction.Role of Institutional Innovations.Technological Improvements and Economic resilience. Hazard Information and Preparedness. Catastrophic Insurance Pool.

References

1. Understanding the Economic and Financial Impacts of Natural Disasters : The World Bank: 2004
2. National disaster management Policy : 2009
3. National disaster management Plan : 2016
4. ADB, 'Finance for the poor, micro finances development strategy, 'Asian Development Bank, Manila, 2000.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)
Fire Risk, Safety and Response

Course Code: DMW 114 L -2 T-0 C-2

Course Outcome

This course will enhance the knowledge of using fire safety equipment at the time of disaster. Most common fire safety objectives are: protection of life, protection of property and continuity of operation.

Unit 1

Classifications of fire, Causes of Fire, Basic Fire Science, General provisions of fire and life safety as per National Building Code of India, categories of Buildings as per occupancy, Passive Fire Safety, Fire Safety Rules & Building evacuation plans, Fire Prevention Methods and Techniques, Building construction and structural fire protection, electric hazard shock and protection; Aircraft fire: action required for rescue and fire fighting in aircraftand airports; explosives, fire hazard and protection in special risk areas, coalfire,Forest fire, Oil Fire and Earthquake induced Fire

Unit 2

Various type of Fire Fighting equipments (pumps & primers, foam and foam making equipments, types of Hoses, Nozzles, water relay systems), Personal protective Equipments (PPE), Safe means of escape, Fire Signage, Fire Alarms & Fire detection, alternatives to emergency lighting, Portable fire Extinguisher (water, foam, CO_2 , ABC) and Fixed fire installations, Fire tenders, automatic sprinklers system, Provisions of fire safety measures for LPG, CNG and PNG.

Unit 3

Fire/ emergency response arrangements by fire services, smoke management system in buildings, Peoples behavior in Fire Emergencies, Search and rescue procedures, breathing apparatus (SBA), extricating trapped personal. Burn Victimsand First Aid

Unit 4

NDMA Guidelines on Scaling, Fire safety and Prevention, Laws related to Safety (Delhi Fire Service Act 2007 , Explosive Act & Electricity Act, Petroleum Act), On-Site and Off- Site Emergency Plan, Case studies on fire in India and Other countries

References:

1. National Building code of India- 2016
2. Unified Building bylaws in Delhi – 2016
3. Delhi Fire Service Act 2007 & Rule 2016
4. A Handbook of Fire Technology by R. S. Gupta, Orient Longman 1993
5. Fire Service Manual, UK

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Incident Response System

Course Code: DMW 116 L -2 T-0 C-2

Course Outcome

This course will enhance the knowledge about different organization that detect and response to after disaster. The goal of incident response is to enable an organization to quickly detect and halt attacks, minimizing damage and preventing future attacks of the same type.

Unit 1

Model A: Principles and features of Incident Response System

Model B: IRS Organization and Staffing

Unit 2

Model C – Incident Facilities

Model D – Response Management

Unit 3

Model E – Organising for Incident or Event

Model F – Incident and Event Planning

Unit 4

NDMA Guidelines on Incident Response System: July 2010.

References

1. NDMA Guidelines on Incident Response System: July 2010.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Term Paper II*

Course Code: DMW 118 L -0 T-0 C-2

Non-University Examination System.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Quantitative Techniques and Research Methodology in Disaster Management (Lab.)

Course Code: DMW 152 L -0 T-0 C-1

Course Outcome

This course covers different input data sets and methods for disaster research, considering the broad scope for research in disaster management and its importance as a means of disaster mitigation and preparedness.

Based on Syllabus of Theory Paper DMW 104

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Applications of Geoinformatics in Disaster Management (Lab.)

Course Code: DMW 154 L -0 T-0 P-1C-1

Course Outcome

In this course students will get hands-on training about the use of satellite data, GIS and GPS in retrieve essential information for disaster risk reduction.

Based on Syllabus of Theory Paper DMW 110

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Table Top and Mock Exercises based on Incident Response System

Course Code: DMW 156 L -0 T-0P-2 C-2

Course Outcome

The aim of this course is to enable an organization to quickly detect and halt attacks, minimizing damage and preventing future attacks of the same type.

Table Top and Mock Exercises based on Incident Response System

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Training/Field Visits to Disaster Sites/ Vulnerable Areas/DM Centres/Institues& Presentation (3 to 5 Days) - II

Course Code: DMW 158 L -2 T-0 C-2

Course Outcome

The course involves the field visit of students to different disaster sites or vulnerable areas to understand the real-life problems faced by the people.

Training/Field Visits to Disaster Sites/ Vulnerable Areas/DM Centres/Institues& Presentation (3 to 5 Days) - II

THIRD SEMESTER

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Industrial Security, Safety and Disaster Risk Reduction

Course Code: DMW 201 L -2 T-0 C-2

Course Outcome

This course aims to enhance students' learning to reduce the damage caused by natural hazards like earthquakes, floods, droughts and cyclones, through an ethic of prevention.

Unit 1

Principles of Industrial Security Management, National Security Scenario and threat perception, industrial risk assessment (Principles of Management in Industrial Risk/ Crisis situation, behavioural and motivational issues in industrial crisis management, Security operations management, Security basics and principles of security design.

Unit 2

Physical Security Measures- Perimeter barriers, security walls, fencing gates, watch towers, buildings access control: Manual/ Electronic, issue of ID cards, visitors Pass, Material gate pass, security lighting, building security- locks and key management, security of parking areas, Security personnel – Selection, training, deployment, motivation, security surveillance CCTV, intrusion, detection, use of dogs; security gadgets; security control room.

Unit 3

Industrial Security and law, Relevant Sections of Indian Penal Code, Evidence Act, Private Security Agencies (Regulation) Act, Labour Act, Factory Act, Employees Standing Order Act, Explosives act, Arms Act, Contract Labour Act, Minimum wages Act, Laws of Contract, Official Secrets Act, ERDMP Regulations 2010, Safety Audits as per BIS 14489 (1998), HIRA 2006.

Unit 4

Emergency Management Protocol, Anti sabotage check, security review & up-gradation, kidnap and hostage situation; Bomb Threats & Search Procedures, bomb explosives& IEDs, search procedure; Executive Protection – Threat perception and special protective measures

References

1. NDMA Guidelines on Management of Nuclear Radiological Emergencies
2. NDMA Guidelines on Management of Chemical (Terrorism) Disasters
3. NDMA Guidelines on School Safety Policy
4. Walter Laqueur, No end to war: Terrorism in the Twenty First Century, New York: Continuum, 2003
5. Managerial Guide for Handling Cyber-Terrorism and Information Warfare

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Role of EIA, Environmental Policy including PDNA in Disaster Risk Management.

Course Code: DMW 203 L -2 T-1 C-3

Course Outcome

CO 1: During this course students will get awareness about the important components (hazard, vulnerability, and exposure) of disaster risk assessment. Risk assessment is an area of direct importance for disaster risk reduction.
CO 2: This course will help the students in knowing about the current status, gaps and challenges in disaster risk assessment. Moreover, the important concepts and approaches in disaster risk assessment process will also be included.

Unit 1

Introduction to EIA;Purpose of EIA; Environmental components, projects and its environmental impact statement; Project screening and scoping; Environmental baseline study.

Unit 2

Impact assessment procedure; Applications of Matrics; Networks and overlay maps; Environmental evaluation system; Transnational Effects of projects; Impact identification; impact prediction; Evaluation and mitigation; Monitoring and Environmental auditing; Regional and strategic EIA, Environmental Management plan; Cost benefit analysis and its dimensions; Problems of EIA and developing countries; Public participation in Environmental decision making, presentation and review, EIA report and its contents

Unit 3

GIS in Disaster Management; GIS as effective tool in disaster management and planning; response requirement study alternate route for sending relief and shortest evacuation routes, display and identification of damaged and unsafe structures; Map creation for action plan identification of risk and planning needs,Case studies; River valley projects; open cast mining projects, thermal power generation. Urbanization and highway projects

Unit 4

Post Disaster Needs Assessment (PDNA), conceptual framework of PDNA, Impact measurement at community level, measured effects on Infrastructure and Assets, Estimate Disasters based on Emerging Risks and Vulnerabilities, Development of Disaster Recovery Framework, Other assessment tools- Damage and Need Assessment (DANA by GFDRR), Damage and Loss Assessment (UN ECLAC Database), Community Damage Assessment and Demand Analysis (European Union & AIDMI), Participatory framework for Assessing Damage after the Disaster (UNNATI).

References

1. Khanna, B K Brig (Dr.) and others. Environmental Sustainability and climate change adaptation Strategies, compiled by Wayne Ganpat and Wendy Ann Issac, IGI Global Hershey PA, USA, 2016.
2. Singh, RB., 'Space Technology for Disaster Monitoring and Mitigation in India, INCEDE, University of Tokyo
3. John Glasson, RikiTherivel and Andrew Chadwick, 'Introduction to Environmental Impact Assessment, 2nd Edition,
4. UCL Press, Philadephia, USA, 1994.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Communication and Early Warning Systems in Disaster Management

Course Code: DMW 205 L -2 T-1 C-3

Course Outcome

In this course the students will get thorough knowledge about the important early warning and forecasting systems and prediction approaches for different natural hazards. Early warning systems and forecasting has been given credit for preventing and reducing the disaster loss across the globe.

UNIT- 1

Introduction to information and communication system: model of communication systems-transmitter, communication channel, attenuation noise. Telecommunication systems: Basic Telephone system. EPABX.

Overview of transmission media:

Modulation Techniques: Types of Communication and need of modulation, Transmitters and Receivers, FM Transmitters and Receivers

UNIT- 2

Optical communication and networks, Evolution of wireless communication systems, Examples of wireless communication systems, Introduction to cellur and mobile communication, 4G & 5G communication, LTE communication.

UNIT- 3

Satellite Communication: Orbital mechanism, satellites, satellite link design, earth station, LEO, MEO and GEO satellites; Mobile satellite telecommunications; Role of satellite based navigation system in disaster management; HAM Radio & Exposure;

Emergency communication system: Introduction, various attributes, technologies supporting disaster management.

Guilelines for National Disaster Management information and communication system

Early Warning System (EWS): Tsunami Warning System (TWS), principles and procedures, communication Equipment and working, sensors, Alarms & Information Networks

UNIT- 4

Cyclone Warning System (CWS) : Cyclone Surveillance Radars, Advance very High Resolution Radio-meter (A.V.H.R.R.), Tiros Information Processor

Various communication methods: Social media Mobile Apps, Smartphones, CB radio,Visit to IMD.

Mobile & Google Applications in Disaster Management; Applications of mobile phones in Disaster Management; SMS Burst on mobiles for alert and early warning; Damage Assessment on Mobile phones; Crowd sourcing information for emergency response;

References :

1. Communication Systems by Kennedey (Publishers: TMH)
2. Data Communications and Networking by Forouzan, 2nd edition (TMH).
3. Electronic Communication Systems by Tomasi, 4th edition (Pearson Education).
4. Satellite Communication Engineering by Gagliardi (Publishers: John Wiley)

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Cyber Terrorism and Security

Course Code: DMW 207 L -2 T-0 C-2

Course Outcome

In this course the students will get thorough knowledge about the cyber terrorism and different strategies by which we can be protected from it. Cyberterrorism entails leveraging ICT infrastructure in order to create real-life damage or critical disruption with the goal of promoting the attackers' underlying political, religious or social issue.

Unit 1

Cyber Security and Information Warfare: Definition, Causes of Increased Cyber Crime. Institutional framework for detecting Cyber Crimes and its relevant provisions and Information Technology Act.

Unit 2

Cyber Security; Concept of information society, critical infrastructure, computer and intranet security, Types of Cyber crimes, business risk, imfrastructural attack, Cyber Terrorism; tools and techniques of a cyber terrorist, potential targets and threats of a cyber terrorist, counter measures; preventive and deterrence, international cyber terrorism; threats, concerns and counter measures.

Unit 3

IT Audit/ Review: Critical Security issues; identifying potential security risks, risk analysis, network security issues. – LANS, WANS, MANs, PANs, firewalls, routers, internet/ extranet security, application development risks, data mining, business intelligence, associated risks and concerns, data quality issues detecting, controlling and mitigation frauds, IT security as a part of corporate governance, Security management best practices.

Unit 4

Business Continuity/ Incident management planning: Disaster vs business impacts, control considerations in an automated office environment, developing and excercising a business continuity/ incident management plans, Corporate governance / compliance and IT Audit.

References

1. Management guide for handling cyber terrorism & information warfare
2. Inside Cyber Warfare, Jeffrey Carr, Lewis Shepherd.
3. Walter Laqueur, Yohana Alexander, “The terrorism Reader: A historical methodology”.
4. “Cyber Terrorism and information warfare: Threats and responses” By Yohana Alexander & Michael S. Swethan.
5. “International Terrorism: National Regional and Global Perspective.”

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Environment, Climate Change and Disaster Risk Rreduction

Course Code: DMW 209 L -2 T-0 C-2

Course Outcome

The students are anticipated to understand the importance and means of disaster preparedness and mitigation. Disaster management aims to reduce, or avoid, the potential losses from hazards, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and effective recovery at different levels.

Unit 1: Introduction to Climate Change- Science and Causes
Weather and Climate Change, Science of Climate Change and causes of Global warming, linkages between Climate Change and climate related hazards/disasters,

Unit 2: Climate Change, its impact & role of ICT
Climate Change impacts on various sectors, Identify vulnerable sectors, Climate Change challenges and opportunities: Global and Indian perspective
Role communication technology, television and radio broadcasting, telephone and fax, cellular phones, satellite communication, amateur and community radio: Role of Internet, Remote sensing, Geographical Information System (GIS), Global Positioning System (GPS), satellite navigation system

Unit 3: Climate Initiatives
Concept of Sustainable development- Burndtland Commission report, Earth Summit-UNFCCC, Inter-governmental Panel on Climate Change (IPCC), Kyoto protocol, Paris agreement, Sustainable Development Goals (SDGs), Sendai framework on Disaster Risk Reduction (2015-2030)

National Action Plan on Climate Change, State Action Plan on Climate Change, India's agenda for Climate Change Adaptation and DRR, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act , Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation, Environment: rights and duties.

Unit 4: Sectoral Adaptation needs and Mitigation options, Disaster Risk Reduction

The need for Adaptation, Sustainable Development practices, New initiatives in Disaster Risk Reduction, Capacity-building, training and awareness, Indian Case Studies on adaptation and Disaster Risk Reduction.

References:

1. Sharma Vinod K. (1995), Disaster Management, IIPA, New Delhi.
2. Climate Change: challenges to sustainable development in India. 2008.Research unit, RajyaSabha Secretariat, New Delhi

3. Singh Shyamli, (2012) Climate Change: Back to Basics, IIPA Discussion Papers Series No.7
4. Mishra Suresh &Shyamli Singh (2017) Sustainable Future: Dynamics of Environment and Disaster Management, Concept Publication House, New Delhi

5. Le Treut, H., R. Somerville, U. Cubasch, Y. Ding, C. Mauritzen, A. Mokssit, T. Peterson and M. Prather. 2007. Historical Overview of Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

6. NationalAction Plan on Climate Change, Government of India
7. World Commission on Environment and Development. 1987. Our Common Future. Oxford: Oxford University Press

8. National Disaster Management Plan. 2016. A publication of the National Disaster Management Authority, Government of India.

9. Ghosh G.K, (2006), Disaster Management, 6th edition, A.P.H. Publishing Corporation, New Delhi.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)
Community Based Disaster Preparedness (CBDP)

Course Code: DMW 211 L -2 T-0 C-2

Course Outcome

In this course the students will get thorough knowledge about the communities living in high-risk areas and different coping mechanisms and strategies developed to deal with the impact of disasters. The community should be made well aware of the risk they are living with.

Unit 1

What is a community, community structure and behavior in managing disaster, Vulnerable populations, Importance given to community in UN document Sendai framework.Importance of CBDP Sustainability (In terms of Resources, Budget and monitoring mechanism)

Unit 2

Goals of a resilient community, individual and family preparedness to mitigate disasters, role at local level for managing disasters, community based disaster risk assessment, assessment tools, village disaster profile, demographic details, resource mapping. Community based disaster risk management plan, framework for community based preparedness, community action plan; public health preparedness, information, education and communication,

Unit 3

Disaster Response Teams at Community level, their composition & Roles; Public health preparedness team, Disaster awareness team, warning and information dissemination team, disaster response groups; Responsibilities – Evacuation team, first-Aid team(s), search and rescue team(s), relief, coordination, shelter management, damage assessment tasks), village safety team, management of community kitchen

Unit 4

Mainstreaming CBDP , Importance and Benefits of Mainstreaming , Scaling up of CBDP through Mainstreaming, Partnership at the Gram Panchayat (GP) and Urban (Municipal) level, Embed CBDP in Government Development Programmes (Department wise schemes, action plans, and key steps), CBDP Case Studies: Sharing of Good Practices in Indian Context, Learning from Traditional Knowledge & Coping Mechanism, NDMA Guidelines on formulation of State Disaster Management Plan

References:

1. Khanna B K Brig (Dr.) and Khanna Nina, “Disasters; Strengthening community Mitigation and preparedness, “New India Publishing Agency, New Delhi, 2011.
2. H K Gupta (2003) Disaster Management
3. NDMA Guidelines on formulation of State Disaster Management Plan
4. Collins Lary R. and Schneid Thomas D., Disaster Management and Preparedness Taylor & Francis, 2000
5. Living with Risk : A global Review of Disaster Reduction Initiatives 2004 Vision, United Nations, 2004

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Supply Chain Management in Disaster

Course Code: DMW 213 L -2 T-0 C-2

Course Outcome

In this course the students will get thorough knowledge about different disaster relief and management programs. It is essentially a disaster relief supply chain management problem that aims at reducing the operational cost and enhancing the social and humanity effectiveness and efficiency.

Unit 1:
Introduction to Disaster supply chain, Difference between supply chain and logistics, Flows associated with supply chain management, International supply chain management, Importance of logistics and Supply chain management, Components of disaster supply chain, Design of supply chain.

Unit2:
Major Decision related to supply chain: Facility location: Site selection, methods of site selection, Inventory management: Types of inventory, EOQ Model, Inventory control system, ABC, VED and FSN system. Transportation: Initial basic feasible solution and testing of optimality, Procurement decision

Unit 3:
Behavioural aspects of supply chain: Leadership style, Characteristic of leader, Factors affecting leadership style, motivation: Maslow's need hierarchy theory, Hertzberg two factor theory, Bases of power and conflict management in supply chain

Unit 4:
Performance measurement: Metrics of performance measurement, Performance measurement framework, Methods of performance measurement, Performance evaluation and management, Benchmarking and international practices

References:

Kovacs and Spens (2011) Relief Supply chain Management for disaster, IGI Global
Tomassini and Wassenhove (2009) Humanitarian Logistics, INSEAD Business Press
Dangi (2014) Disaster Management: Humanitarian logistics in Relief operations. Index International, India

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
MBA (DISASTER MANAGEMENT)

Minor Project Work*/ DMPs and Presentation

Course Code: DMW 215 L -0 T-0 C-6

Course Outcome

This course involves components for preparation of project work and presentation by concerned students on any of the topics relevant to disaster management theme selected in consultation with the concerned supervisor (teacher).

Non-University Examination System.

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Seminar/ Workshop/ Conference

Course Code: DMW 217 L -0 T-2 C-2

Course Outcome

This course involves attending of different seminar/ workshop/ conference by concerned students on different topics relevant to disaster management theme to enhance the knowledge about the subject.

Seminar/ Workshop/ Conference

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Cyber Terrorism and Security

Course Code: DMW 251 L -0 T-0 P-1 C-1

Course Outcome

In this course the students will get thorough knowledge about the cyber terrorism and different strategies by which we can be protected from it. Cyber terrorism entails leveraging ICT infrastructure in order to create real-life damage or critical disruption with the goal of promoting the attackers' underlying political, religious or social issue.

Based on Syllabus of Theory Paper DMW 207

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Communication and Early Warning Systems in Disaster Management (Lab.)

Course Code: DMW 253 L -0 T-0 P-1 C-1

Course Outcome

In this course the students will get thorough knowledge about the important early warning and forecasting systems and prediction approaches for different natural hazards. Early warning systems and forecasting has been given credit for preventing and reducing the disaster loss across the globe.

Based on Syllabus of Theory Paper DMW 205

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Training/ Field Visits to Disaster Sites/ Vulnerable Areas/DM Centres./ Institutes & Presentation (3 to 5 Days) - III

Course Code: DMW 255 L -0 T-1P-1C-2

Course Outcome

The course involves the field visit of students to different disaster sites or vulnerable areas to understand the real life problems faced by the people.

Training/ Field Visits to Disaster Sites/ Vulnerable Areas/DM Centres/ Institutes & Presentation (3 to 5 Days) - III

FOURTH SEMESTER

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

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MBA (DISASTER MANAGEMENT)

Course Code: DMW 202 L -3 T-1 C-4

Seminar and Progress Reports*

*Non-University Examination System (NUES)

MBA (DISASTER MANAGEMENT)

Dissertation

Course Code: DMW 204 L -0 T-0 C-24

Course Outcome

This course involves components for preparation of dissertation by concerned students on any of the topics relevant to disaster management theme selected in consultation with the concerned supervisor (teacher).

Dissertation*

Student will submit a synopsis on the dissertation in the Fourth Semester in a specified format. The first defense for dissertation work would be held within a month. Dissertation report must be submitted in a specified format to the Centre for evaluation purpose within six months of the commencement of the semester.

'*Non-University Examination System (NUES)

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

MBA (DISASTER MANAGEMENT)

Dissertation Presentation and Viva Voce

Course Code: DMW 206 L -0 T-0 C-8

Course Outcome

This course involves components for preparation of dissertation by concerned students on any of the topics relevant to disaster management theme selected in consultation with the concerned supervisor (teacher).

Dissertation Presentation and Viva Voce*

Students are required to give presentation and viva-voce exam after the submission of dissertation.

*Non-University Examination System (NUES)