

## MANDATORY NON-CREDIT COURSES FROM AICTE FOR B.TECH PROGRAMS

### Evaluation Pattern

Assessment	Internal	External
Online Test	-	100

### COURSE SYLLABUS

<b>19MNG300</b>	<b>DISASTER MANAGEMENT</b>	<b>P/F</b>
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#### **Course Objectives**

To provide an awareness on the types and impacts of disasters and concepts of disaster management

#### **Syllabus**

##### **Unit 1**

Introduction - Concepts and definitions. Disasters - Disasters classification; natural disasters (floods, draught, cyclones, volcanoes, earthquakes, tsunamis, landslides, coastal erosion, soil erosion, forest fires etc.); man-made disasters (industrial pollution, artificial flooding in urban areas, nuclear radiation, chemical spills, transportation accidents, terrorist strikes, etc.)

##### **Unit 2**

Hazard and vulnerability profile of India, mountain and coastal areas, ecological fragility. Factors affecting vulnerability such as impact of developmental projects and environmental modifications (including of dams, land use changes, urbanization etc.)

Disaster Impacts - Disaster impacts (environmental, physical, social, ecological, economic, political, etc.); health, psycho-social issues; demographic aspects (gender, age, special needs); hazard locations; global and national disaster trends; climate change and urban disasters.

##### **Unit 3**

Disaster Risk Reduction (DRR) - Disaster management cycle – its phases; prevention, mitigation, preparedness, relief and recovery; structural and non-structural measures; risk analysis, vulnerability and capacity assessment; early warning systems, Post disaster environmental response (water, sanitation, food safety, waste management, disease control, security, communications); Roles and responsibilities of government, community, local institutions, NGOs and other stakeholders; Policies and legislation for disaster risk reduction, DRR programmes in India and the activities of National Disaster Management Authority.

#### **Text Book(s)**

*R. Subramanian, Disaster Management, Vikas Publishing House (2018)*

#### **Reference(s)**

*Bhandari and Rajendra Kumar, Disaster Education and Management, Springer, 2016.*

*NIDM publications, <https://nidm.gov.in/books.asp>*

*<http://ndma.gov.in/> (Home page of National Disaster Management Authority)*

*<http://www.ndmindia.nic.in/> (National Disaster management in India, Ministry of Home Affairs).*

*Pradeep Sahni, 2004, Disaster Risk Reduction in South Asia, Prentice Hall.*

*Singh B.K., 2008, Handbook of Disaster Management: Techniques & Guidelines, Rajat Publication.*

*Ghosh G.K., 2006, Disaster Management, APH Publishing Corporation*

*Inter Agency Standing Committee (IASC) (Feb. 2007). IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings. Geneva: IASC*

<b>19ENV300</b>	<b>ENVIRONMENTAL SCIENCE</b>	<b>P/F</b>
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**Course Objectives**

- To study the nature and facts about environment
- To appreciate the importance of environment by assessing its impact on the human world
- To study the integrated themes and biodiversity, pollution control and waste management

**Course Outcomes**

**CO1:** Ability to understand aspects of nature and environment

**CO2:** Ability to analyse impact of environment on human world

**CO3:** Ability to comprehend pollution control and waste management

**CO – PO Mapping**

PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO														
CO1	-	-	-	-	-	3	2	3	-	-	-	-	-	-
CO2	-	-	-	-	-	3	2	3	-	-	-	-	-	-
CO3	-	-	-	-	-	3	2	3	-	-	-	-	-	-

**Syllabus**

**Unit 1**

Over view of the global environment crisis – Biogeochemical cycles – Climate change and related international conventions and treaties and regulations – Ozone hole and related International conventions and treaties and regulations – Overpopulation – energy crisis – Water crisis – ground water hydrogeology – surface water resource development.

**Unit 2**

Ecology, biodiversity loss and related international conventions – treaties and regulations – Deforestation and land degradation – food crisis – water pollution and related International and local conventions – treaties and regulations – Sewage domestic and industrial and effluent treatment – air pollution and related international and local conventions – treaties and regulations – Other pollution (land, thermal, noise).

**Unit 3**

Solid waste management (municipal, medical, e-waste, nuclear, household hazardous wastes) – environmental management – environmental accounting – green business – eco-labelling – environmental impact assessment – Constitutional – legal and regulatory provisions – sustainable development.

**Text Book(s)**

*R. Rajagopalan, “Environmental Studies – From Crisis to Cure”, Oxford University Press, 2005, ISBN 0-19-567393-X.*

**Reference(s)**

*G.T.Miller Jr., “Environmental Science”, 11<sup>th</sup> Edition, Cenage Learning Pvt. Ltd., 2008.*

*Benny Joseph, “Environmental Studies”, Tata McGraw-Hill Publishing company Limited, 2008.*

**Course Objectives**

- To know about Indian constitution
- To know about central and state government functionalities in India
- To know about Indian society

**Syllabus****Unit 1**

Historical Background – Constituent Assembly Of India – Philosophical Foundations Of The Indian Constitution – Preamble – Fundamental Rights – Directive Principles Of State Policy – Fundamental Duties – Citizenship – Constitutional Remedies For Citizens.

**Unit 2**

Union Government – Structures of the Union Government and Functions – President – Vice President – Prime Minister – Cabinet – Parliament – Supreme Court of India – Judicial Review.

**Unit 3**

State Government – Structure and Functions – Governor – Chief Minister – Cabinet – State Legislature – Judicial System in States – High Courts and other Subordinate Courts.

**Text Book(s)**

*Durga Das Basu, "Introduction to the Constitution of India", Prentice Hall of India, New Delhi.*  
*R.C.Agarwal, (1997) "Indian Political System", S.Chand and Company, New Delhi.*

**Reference(s)**

*Sharma, Brij Kishore, "Introduction to the Constitution of India", Prentice Hall of India, New Delhi.*