

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's

New Arts, Commerce, and Science College

Ahmednagar (Autonomous)

(Affiliated to Savitribai Phule Pune University, Pune)



National Education Policy (NEP)

Choice Based Credit System (CBCS)

Programme Framework and Syllabus for

Open Elective: Geography

खुला वैकल्पिक विषय: भूगोल

(For Students of Science and Commerce Faculty)

(विज्ञान व वाणिज्य शाखेतील विद्यार्थ्यांकरिता)

Implemented from

Academic Year 2024-25

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's
**New Arts, Commerce and Science College, Ahmednagar
(Autonomous)**

Introduction of Open Electives (Geography): For Science and Commerce Faculty

In recognition of the interdisciplinary nature of geography and its relevance to various fields of study, we are delighted to introduce an Open Elective Course of Geography in Science. This course is designed to offer students a comprehensive understanding of geographical concepts and their applications in addressing real-world challenges. With a focus on natural and man-made hazards, disaster management, environmental geography, and agricultural geography, these papers aim to enhance students' geographical aptitude and foster the ability to correlate geography with day-to-day life.

Understanding the dynamics of natural and man-made hazards is crucial for effective risk assessment, mitigation, and response. This paper provides students with an in-depth exploration of various hazards, including earthquakes, tsunamis, floods, droughts, industrial accidents, and technological disasters.

Disasters pose significant challenges to communities and societies worldwide, highlighting the need for proactive disaster management strategies. This paper explores the geographical dimensions of disaster management, focusing on preparedness, response, recovery, and resilience-building efforts.

This paper explores the intricate relationships between the environment, agriculture, and human societies, emphasizing the spatial dimensions of environmental change and agricultural sustainability. Students will examine the geographical factors influencing agricultural practices, food security, and environmental conservation.

Open Elective/ Generic Elective Framework and Course Distribution:

Subject: Geography (For Science and Commerce Faculty only)

Sr. No.	Year	Semester	Level	Course Type	Course Code	Title	Credits
1.	I	I	4.5	OE-01	OE-GO-01T	Natural and Man-made Hazards	02
2.	I	II	4.5	OE-01	OE-GO-02T	Geography of Disaster Management	02
3.	II	III	5.0	OE-03	OE-GO-03T	Tourism Geography	02
4.	II	IV	5.0	OE-04	OE-GO-04T	Agricultural Geography	02
Total							08

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New Arts, Commerce and Science College, Ahmednagar
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Syllabus of Open Elective: Geography

Title of the Course: Natural and Man-made Hazards								
Year: I				Semester: I				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
OE-01	OE-GO-01T	02	00	02	30	15	35	50

Learning Objectives:

1. To understand the concepts of Hazards and their types.
2. To make students well aware of the causes and effects of natural hazards.
3. To acquaint the knowledge of causes and effects of man-made hazards.
4. To make students well aware of global issues.

Course Outcomes (COs):

After completion of this course students will

1. Understand the concepts of Hazards and their types.
2. Well aware of the causes and effects of natural hazards.
3. Acquaint with the knowledge of causes and effects of man-made hazards.
4. Well aware of global issues.

Detailed Syllabus:

Unit I: Introduction to Hazards (06)

- a. Definition and Meaning of Hazards
- b. Types of Natural Hazards – Climatic, Geological, Geomorphic
- c. Types of Man-made Hazards – Physical, Chemical, Biological
- d. Factors responsible to Natural and Man-made Hazards

Unit II: Natural Hazards (09)

- a. Climatic Hazards: Causes and Effects
 - i. Droughts
 - ii. Floods
- b. Geological Hazards: Causes and Effects
 - i. Earthquake
 - ii. Tsunami
- c. Geomorphic Hazards: Causes and Effects
 - i. Landslide
 - ii. Soil Erosion

Unit III: Man-made Hazards**(09)**

Causes and Effects of-

- | | | |
|-----------------|-------------------------|-----------------------------|
| i. Forest fires | ii. Desertification | iii. Nuclear Hazards |
| iv. Pollution | v. Population Explosion | vi. Ecological Disturbances |

Unit IV: Global Issues**(06)**

- Global Warming
- Ozone Depletion
- Terrorism
- War

तपशीलवार अभ्यासक्रम: (मराठी भाषांतर)**प्रकरण I: आपत्तींचा परिचय****(06)**

- आपत्ती: अर्थ आणि व्याख्या
- नैसर्गिक आपत्तींचे प्रकार - हवामान, भूगर्भीय, भूरूपीय
- मानवनिर्मित आपत्तींचे प्रकार - भौतिक, रासायनिक, जैविक
- नैसर्गिक व मानवनिर्मित आपत्तींस जबाबदार घटक

प्रकरण II: नैसर्गिक आपत्ती**(09)**

- वातावरणीय आपत्ती: कारणे आणि परिणाम
 - दुष्काळ
 - पूर
- भूगर्भीय आपत्ती: कारणे आणि परिणाम
 - भूकंप
 - त्सुनामी
- भूरूपीय आपत्ती: कारणे आणि परिणाम
 - भूस्खलन
 - मृदा धूप

प्रकरण III: मानवनिर्मित आपत्ती**(09)**

- कारणे आणि परिणाम
 - वनवे
 - वाळवंटीकरण
 - आण्विक धोके
 - प्रदूषण
 - लोकसंख्या विस्फोट
 - इकोलॉजिकल डिस्टर्बन्सेस

प्रकरण IV: जागतिक समस्या**(06)**

- जागतिक तापमानवाढ
- ओझोन न्हास
- दहशतवाद
- युद्ध

Suggested Readings/Material:

1. Turk J. (1985): Introduction to Environmental Studies, Saunders, College Publication, Japan
2. Singh Savindra (2000): Environmental Geography, Parag Pustak Bhavan, Allahabad
3. Morrisawa M (Ed) (1994): Geomorphology and Natural Hazards, Elsevier, Amsterdam
4. Hart M. G. (1986): Geomorphology, Pure and Applied, George Allen and Unwin, London
5. Valdiya K. S. (1987): Environmental Geology, Tata McGraw Hill, New Delhi
6. Bryant Edward (2000): Natural Hazards, Cambridge University Press
7. Daly Herman E. (1996): Beyond Growth, Beacon Press, Boston
8. Daly Herman E and Twonseed Keneth N (Ed) (1993): Valuing the earth – Economics, Ecology and Ethics, MIT Press, London
9. Agarwal Anil and Narain Sunita (Ed) (1999): State of India's Environment The Citizens Report, Centre for Science and Environment, New Delhi
10. Rangachari R, Sengupta Nirmal, et al (2000): WCD Case Study Large Dams : India's Experience Final Report, Secretariate of World Commission on Dams
11. Dupont, R.R. Baxter, T.E. and Theodore, L. (1998): Environmental Management: - Problems and Solutions, CRC Press
12. Smith, K. (2001): Environmental Hazards: Assessing Risk and Reducing Disaster, Routledge.

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Syllabus of Open Elective: Geography

Title of the Course: Geography of Disaster Management								
Year: I				Semester: II				
Course Type	Course Code	Credit Distribution		Credits	Allotted Hours	Allotted Marks		
		Theory	Practical			CIE	ESE	Total
OE-02	OE-GO-02T	02	00	02	30	15	35	50

Learning Objectives:

1. To understand basic concepts in Disaster management.
2. To know about structure and measures of Disaster Management.
3. To understand climatic, Geological, Geomorphic and anthropogenic disasters and their management.
4. To aware about Global environmental issues.

Course Outcomes (COs)

After completion of this course students will

1. Understand basic concepts in Disaster management.
2. Know about structure and measures of Disaster Management.
3. Understand climatic, Geological, Geomorphic and anthropogenic disasters and their management.
4. Well aware about Global environmental issues.

Detailed Syllabus:

Unit I: Concepts in Disaster Management (07)

- a. Concept of Disaster Management
- b. Principles of Disaster Management
- c. Pre-disaster Management and Post – disaster Management

Unit II: Structure and measures of Disaster management (08)

- a. Structure of disaster management - Preparedness, Response, Recovery, Mitigation, Rehabilitation
- b. Standard operating procedure of management on government level

Unit III: Disasters and their management (07)

- a. Climatic Disasters – Cloud Burst, Cyclones, Droughts and Floods
- b. Geological Disasters- Earthquake, Landslide and Tsunami
- c. Anthropogenic disasters- Deforestation, Forest Fire and Soil degradation

Unit IV: Global Environmental issues and Summits (08)

- a. Climate Change
- b. Ozone depletion
- c. Pollution

तपशीलवार अभ्यासक्रम: (मराठी भाषांतर)**प्रकरण I: आपत्ती व्यवस्थापनातील संकल्पना (07)**

- a. आपत्ती व्यवस्थापनाची संकल्पना
- b. आपत्ती व्यवस्थापनाची तत्त्वे
- c. आपत्तीपूर्व व्यवस्थापन आणि आपत्तीनंतरचे व्यवस्थापन

प्रकरण II: आपत्ती व्यवस्थापनाची रचना आणि उपाय (08)

- a. आपत्ती व्यवस्थापनाची रचना - तयारी, प्रतिसाद, पुनर्प्राप्ती, शमन, पुनर्वसन
- b. शासकीय स्तरावरील व्यवस्थापनाची मानक कार्यप्रणाली

प्रकरण III: आपत्ती आणि त्यांचे व्यवस्थापन (07)

- a. वातावरणीय आपत्ती - ढगफुटी, चक्रीवादळे, दुष्काळ आणि पूर
- b. भूगर्भीय आपत्ती - भूकंप, भूस्खलन आणि त्सुनामी
- c. मानवनिर्मित आपत्ती- जंगलतोड, वनवे आणि मृदा न्हास

प्रकरण IV: जागतिक पर्यावरण समस्या आणि शिखर परिषद (08)

- a. हवामान बदल
- b. ओझोन न्हास
- c. प्रदूषण

Suggested Readings/Material:

1. Alexander, D. (1993): Natural Disasters. UCL Press Ltd., London
2. Bloom, A.L., 1998. Geomorphology. A Systematic Analysis of Late Cenozoic Landforms. Pearson Education (Singapore) Pte. Ltd.
3. Chandna, R. C., 2000. A Geography of Population, Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi.

4. Copola P Damon, 2007, Introduction to International Disaster Management
5. Cuny, F. 1983, Development and Disaster, Oxford University Press.
6. Govt. of India, 2005, Disaster Management Act Government of India, New Delhi.
7. Hamblin, W.K., 1989. The Earth's Dynamic Systems, Macmillan Publishing Company, New York.
8. Huggett, D.A., 2004. Fundamentals of Biogeography, Routledge.
9. Kale, V.S. and Gupta, A., 2001. Introduction to Geomorphology, Orient Longman, Calcutta.
10. Knox, P. and Agnew J., 1998. The Geography of the World Economy, Arnold, London.
11. Lutgens, F.K. and Tarbuck, E.J., 2007. The Atmosphere. Prentice Hall, Englewood Cliffs, New Jersey, USA.
12. Ross, D. A., 1988. Introduction to Oceanography. Prentice Hall, New Jersey.
13. Saptarshi P. G., More J. C., Ugale V. R. and Arjun Musmade (2009), "Geography and Natural Hazard" Diamond, Pune.
14. Savindra Singh, (2000): Environmental Geography. Prayag Pustak Bhavan, Allahabad
15. Singh, S., 1998. Geomorphology, Prayag Pustak Bhavan, Allahabad.
16. Strahler, A.A. and Strahler, A. N., 2002. Physical Geography: Science and Systems of the Human Environment, John Wiley and Sons, INC.
17. A. H. Choudhar, P. N. Salve, S. M. Kadam. R. H. Choudhar, V. C. Ithape (2010), "Contemporary Issues and Geography, Atharva, Pune.
18. Musmade Arjun. H., More J. C., 2014, Geography of Disaster Management, Diamond, Pune.
19. <http://studymaterial.unipune.ac.in>