

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 Skeleton and Syllabus of
Open Elective (OE)

Earth and Environmental Science
(Geography and Environmental Science)

Implemented from
Academic Year 2023-24

Credit Distribution: UG Programme

	Type of Courses	III Yr	IV Yrs (Honours)	IV Yrs Research
Major Marathi	Discipline-Specific Courses (DSC)	46	74	66
	Discipline Specific Elective (DSE)	08	16	16
	Skill Enhancement Courses (SEC)	06	06	06
	Vocational Skill Courses (VSC)	08	08	08
	On-Job Training (OJT)	04	08	04
	Field Project (FP)	04	04	04
	Community Engagement and Service (CEP)	02	02	02
	Research project	00	00	12
	Research Methodology	00	04	04
	Total (I, II and III Year)	78	122	122
Minor	Minor	20	20	20
Other Courses	Open Elective (OE)/ Multidisciplinary Courses	12	12	12
	Indian Knowledge System	02	02	02
	Co-Curricular Courses	08	08	08
	Ability Enhancement Courses	08	08	08
	Value Education Courses	04	04	04
	Total	132	176	176

Bucket list of Open Elective Courses (OE) offered by the college

Sr. No.	School/Department	Department	Credits/Course	Courses	Total Credits
1.	Marathi	Marathi	03	04	12
2.	Hindi	Hindi	03	04	12
3.	English	English	03	04	12
4.	Economics	Economics	03	04	12
5.	Social Sciences	History, Political Science Sociology, Defense Studies	03	04	12
6.	Mental and Moral Sciences	Philosophy Psychology	03	04	12
7.	Music	Music	03	04	12
8.	Commerce	Commerce	03	04	12
9.	Management	BBA and BBA (CA)	03	04	12
10.	Chemical Science	Chemistry	03	04	12
11.	Life Sciences	Botany, Zoology, Microbiology, and Biotechnology	03	04	12
12.	Physical Sciences	Physics and Electronics	03	04	12
13.	Mathematical Science	Mathematics and Statistics	03	04	12
14.	Computational Science	CASAS	03	04	12

15.	Media Studies	Communication Studies and Animation	03	04	12
16.	Earth and Environmental Science	Geography and Environmental Science	03	04	12

List of OE under the Faculty of Science
Open for Commerce and Humanities(Arts)

Sr. No.	Offering Departments	OE-01	OE-02	OE-03	OE-04
	Credits	03	03	03	03
1.	Chemical Science	ABC	ABC	ABC	ABC
2.	Life Sciences	ABC	ABC	ABC	ABC
3.	Physical Sciences	ABC	ABC	ABC	ABC
4.	Mathematical Science	ABC	ABC	ABC	ABC
5.	Computational Science	ABC	ABC	ABC	ABC
6.	Media Studies	ABC	ABC	ABC	ABC
7.	Earth and Environmental Science	ABC	ABC	ABC	ABC

List of OE under the Faculty of Commerce
Open for Humanities (Arts) and Science

Sr. No.	Offering Departments	OE-01	OE-02	OE-03	OE-04
	Credits	03	03	03	03
1.	Commerce	ABC	ABC	ABC	ABC
2.	Management	ABC	ABC	ABC	ABC

List of OE under the Faculty of Humanities (Arts)
Open for Commerce and Science

Sr. No.	Offering Departments	OE-01	OE-02	OE-03	OE-04
	Credits	03	03	03	03
1.	Marathi	ABC	ABC	ABC	ABC
2.	Hindi	ABC	ABC	ABC	ABC
3.	English	ABC	ABC	ABC	ABC
4.	Economics	ABC	ABC	ABC	ABC
5.	Social Sciences	ABC	ABC	ABC	ABC
6.	Mental and Moral Sciences	ABC	ABC	ABC	ABC
7.	Music	ABC	ABC	ABC	ABC

Programme Framework (Courses and Credits): Open Elective (OE) in Earth and Environmental Science

Sr. No.	Year	Semester	Level	Course Type	Course Code	Title	Credits
1.	I	I	4.5	OE-01	OE-01	Natural and Man-made Hazards	03
2.	I	II	4.5	OE-02	OE-02	Urban Environmental Management	03

3.	II	III	5.0	OE-03	OE-03	Geography of Disaster Management	03
4.	II	IV	5.0	OE-04	OE-04	Environmental Geography	03
							12

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Syllabus
Open Elective (OE)

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-1	OE-1	03	00	03	45	30	70	100

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 (12)

- a. Definition, types of natural hazards – Climatic, Geological, Geomorphic
- b. Types of man-made hazards – Physical, Chemical, Biological.
- c. Factors contributing to man-made hazards

Unit II: Natural Hazards (08)

- a. Climatic Hazards: Causes and Effects
 - i. Storm
 - ii. Droughts
 - iii. Floods
 - iv. Heat Waves
- b. Geological Hazards: Causes and Effects
 - i. Earthquakes
 - ii. Tsunami
- c. Geomorphic Hazards: Causes and Effects
 - i. Landslides
 - ii. Erosion

Unit III: Man-made Hazards

(12)

Causes and Effects of

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

Unit IV: Global Issues

(13)

- a. Global Warming
- b. Ozone Depletion
- c. Terrorism
- d. War

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.