

**Kavayitri Bahinabai Chaudhari
North Maharashtra University, Jalgaon**



'A' Grade
NAAC Re-Accredited
(4th Cycle)

SYLLABUS

for

Value Education Courses (VEC)

At

Four Year Under Graduate Programme As per NEP-2020 Pattern

For

Faculty of Science & Technology

With Effect from

June - 2024

Prepared By: Prof. S. S. Rajput, Dean, Faculty of Science and Technology

**Summary of Distribution of Credits
for
Value Education Courses (VEC)**

Semester-wise Code structure for Value Education Courses (VEC) For Faculty of Science & Technology, Humanities and Commerce & Management as per NEP2020, for Affiliated Colleges w.e.f – June 2024.											
B. Sc (Honors/Research) – First Year, SEMESTER – I, Level – 4.5											
Course	Course Type	Course Code	Course Title	Credits	Teaching Hours/Week			Marks (Total 50)			
					T	P	Total	Internal (CA)		External (UA)	
								T	P	T	P
VEC-1	VEC	ES-115	Environmental Studies	2	2	--	2	20	--	30	--
B. Sc (Honors/Research) – First Year, SEMESTER – II, Level – 4.5											
VEC-2	VEC	CI-125	Constitution of India	2	2	--	2	20	--	30	--

Semester – I

Course Code: ES-115

Course Title: Environmental Studies

Course Code: ES-115	Course Category: Value Education Course (VEC)
Course Title: Environmental Studies	Type: Theory & Practical
Total Contact Hours: 30 (2/week)	Course Credits: 02
College Assessment (CA) Marks: 20 Marks	University Assessment (UA): 30 Marks
Course Objectives: <ul style="list-style-type: none">• Students will integrate knowledge from multiple disciplines representing physical and life sciences perspectives, political and economic perspectives, and social and cultural perspectives on human interactions with the environment.• Students will contribute to and facilitate interdisciplinary research and problem solving through independent and collaborative work.• Students will use quantitative and qualitative research tools and techniques to analyze, implement, envision, assess, and report sustainability efforts.• Students will be able to understand local and global environmental problems and their role in environmental conservation.	
Course Outcomes: <ul style="list-style-type: none">• Articulate the interconnected, and interdisciplinary nature of environmental studies and demonstrate an integrative approach to environmental issues with a focus on sustainability.• Use critical thinking, and understand the methodological approaches of the social sciences, natural sciences, and humanities in environmental problem solving.• Communicate complex environmental information to both technical and non-technical audiences.• Understand and evaluate the local and global scale of environmental problems and reflect critically on their roles, responsibilities, and identities as citizens and consumers in a complex, and interconnected world.	

Course Contents:

Unit 1: Environment and Current Issues

(07 L, 07 M)

Ecosystem: Structure and function of ecosystem, Energy flow in an ecosystem, food chains, food webs, and ecological succession. Case studies of the forest grassland, desert, and aquatic ecosystems.

Current Environmental Issues: Environmental pollution, climate change, global warming, ozone layer depletion, and acid rain. Interdisciplinary nature of environmental studies and Concept of sustainable development.

Unit 2: Natural Resources and Biodiversity Conservation

(08 L, 08 M)

Land resources and land use change: Land degradation, soil erosion and desertification. Causes and impacts due to development projects on environment, biodiversity and tribal populations.

Water: Use and over-exploitation of surface and ground water, floods, droughts, and conflicts over water. Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs.

Biodiversity: India as a mega-biodiversity nation, Endangered and endemic species of India. Threats to biodiversity.

Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic, and informational value.

Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

Unit 3: Environmental Pollution and Policies (08 L, 08 M)

Environmental pollution: Causes, effects and controls of air, water, soil and noise pollution.

Nuclear hazards and human health risks.

Solid waste management: Control measures of urban and industrial waste.

Environment legislations: Environment Protection Act, Air (Prevention & Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act.

International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity.

Unit 4: Human Communities and Environment (07 L, 07 M)

Human population growth: Impacts on environment, human health and welfare. Resettlement and rehabilitation of project affected persons, case studies.

Disaster management: floods, earthquakes, cyclones and landslides.

Environmental movements: Chipko, Silent valley, and Bishnois of Rajasthan.

Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies.

Suggested readings:

1. Erach Bharucha, 2004 Environmental Studies for Undergraduate courses, UGC, New Delhi.
2. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.
3. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
4. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.
5. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
6. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.
7. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36---37.
8. McCully, P. 1996. Rivers no more: the environmental effects of dams (pp. 29---64). Zed Books.
9. McNeill, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
10. Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia: Saunders.

- 11.** Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
- 12.** Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
- 13.** Rosencranz, A., Divan, S., & Noble, M. L. 2001. Environmental law and policy in India. Tripathi 1992.
- 14.** Sengupta, R. 2003. Ecology and economics: An approach to sustainable development. OUP.
- 15.** Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi.
- 16.** Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
- 17.** Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
- 18.** Warren, C. E. 1971. Biology and Water Pollution Control. WB Saunders.
- 19.** Wilson, E. O. 2006. The Creation: An appeal to save life on earth. New York: Norton.
- 20.** World Commission on Environment and Development. 1987. Our Common Future. Oxford University Press

Semester – II

Course Code: CI-125

Course Title: Constitution of India

Course Code: CI-125	Course Category: Value Education Course (VEC)
Course Title: Constitution of India	Type: Theory
Total Contact Hours: 30 (2/week)	Course Credits: 02
College Assessment (CA) Marks: 20 Marks	University Assessment (UA): 30 Marks
Course Objectives: <ul style="list-style-type: none">• To introduce the value and philosophy of Indian Constitution among the students.• To inform the Indian Institutional working Process.• To make students aware of basic rights and duties to be good citizens of India.	
Course Outcomes: <ul style="list-style-type: none">• Constitution of India can be understood with its basic principles.• Understanding the Constitution and its values and to protect and nurture the ideals of the framers of the Constitution.• Information about parliamentary process and judicial system.• Ensuring knowledge about the various Fundamental Rights and duties and the Directive Principles that are fundamental in the governance of the country.	

Course Contents:

Unit 1: Background of Indian Constitution

(08 L, 08 M)

- Indian Constitution- Meaning, Definition
- Overview of various Acts during British Period
- Formation of Constituent Assembly
- Salient features of Indian Constitution

Unit 2: Principles, Rights and Duties

(08 L, 08 M)

- Preamble: Objectives and Principles
- Fundamental Rights
- Directive Principles of State Policy
- Fundamental Duties

Unit 3: President, Parliament and Prime Minister

(08 L, 08M)

- President- Power and Functions
- Parliament-Composition, Power and Functions
- Prime Minister-Power and Functions

Unit 4: Supreme Court & Major amendments

(06 L, 06 M)

- Supreme Court- Composition, Power and Jurisdiction, Judicial Review
- Major Amendments- 73rd Amendment, 101st Amendment, 105th Amendment

Reference Books:

- 1) Indian Constitution
- 2) Johari J.C: Select World constitution: Lotus Press
- 3) Kashyap Subhash: Our Constitution 2015, Our Parliament, Our Political System 2013
- 4) Basu D.D: Introduction to the Constitution of India: Lexis Nexis Publisher: 26th Edition, 2022
- 5) Khanna H R: Making of India's Constitution: Eastern Book Company: Second Edition 2008
- 6) Agraval P k & Chaturvedi K N : Constitution of India : Prabhat Prakashan New Delhi 2022
- 7) B. Shiva Rao: The Framing of India's Constitution: Law & Justice Publishing Co. Reprint Edition 2021
- 8) Samaraditya Pal: Lexis Nexis's India's Constitution –Origins and Evolution (Constituent Assembly Debates, Lok Sabha Debates on Constitutional Amendments and Supreme Court Judgments: Lexis Nexis Publishers 1st Edition 2019.
- 9) बाबेल वसंतीलाल भारत का संविधान: सेंट्रल लॉ पब्लिकेशन्स अलहाबाद २०२२
- 10) फाडीया बी. एल. भारत का संविधान २०१५
- 11) जैन पुखराज व फाडीया बी.एल. भारतीय शासन एवं राजनिती २०१५
- 12) भोळे भा.ल:भारताचे शासन आणि राजकारण: विद्या प्रकाशन नागपूर
- 13) राठी शुभांगी: भारतीय संविधानाची ओळख: अथर्व पब्लिकेशन जळगाव
- 14) पवार प्रमोद व तुंटे विजय: भारतीय संविधान व शासन:प्रशांत पब्लिकेशन जळगाव २०१८
- 15) निकुंभ दिलिपसिंग व मोरे सुरेंद्र: भारतीय संविधान: प्रशांत पब्लिकेशन जळगाव २०१६
- 16) कुलकर्णी बी.वाय व नाईकवाडे अशोक: भारताचे शासन आणि राजकारण: श्रीविद्या प्रकाशन पुणे २००३
- 17) जोशी सुधाकर: भारतीय शासन आणि राजकारण: विद्या बुक्स पब्लिशर्स: औरंगाबाद २०१५
- 18) कुलकर्णी बी.वाय: भारतीय संविधान शासन व राजकीय प्रक्रीया: एज्युकेशनल पब्लिशर्स:औरंगाबाद २०१३

Contributors:

- **Chairman: Prin. Dr. S. S. Rajput, Dean, Faculty of Science & Technology**
- **Coordinator: Prof. Uday S. Jagtap, Dhanaji Nana Mahavidyalaya, Fazipur**

Course Code & Title	Name
ES-115 - Environmental Awareness	• Dept of Environmental Science KBCNMU
CI-125- Constitution of India	• Prof. T. M. Sawsakade Dhanaji Nana Mahavidyalaya, Fazipur

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