MAHARAJA SRIRAM CHANDRA BHANJA DEO UNIVERSITY, BARIPADA

Multidisciplinary Courses under NEP, 2020

(Credit-9)

LIST OF SUBJECTS BASED MULTIDISCIPLINARY COURSES

A student can choose one paper from the basket of seven for each semester given in the table. However, students are to be encouraged to opt for courses outside their discipline/faculty/subject

SEMESTER-I (Credit-3)					
Paper-I (Any one Subject from the list)	**Subject teachers to teach (preferably) or any other teacher competent to teach**	**Credit**	**Full Mark**	**End Sem**	**Mid Sem**
Human Rights	Pol. Sc/Pub. Admn	3	100	60	40
SEMESTER-II (Credit-3)					
Paper-II (Any one from the list)	**Subject teachers to teach (preferably) or any other teacher competent to teach**	**Credit**	**Full Mark**	**End Sem**	**Mid Sem**
Environmental Education	Bot./Chem./Edn./ Env.	3	100	60	40
SEMESTER-III (Credit-3)					
Paper-III (Any one from the list)	**Subject teachers to teach (preferably) or any other teacher competent to teach**	**Credit**	**Full Mark**	**End Sem**	**Mid Sem**
Environmental Chemistry	Chemistry	3	100	60	40

SEMESTER-I (Credit-3)
Human Rights

Course Objectives:

The course on Human Rights aims to provide a comprehensive understanding of the concept, evolution, and theoretical foundations of human rights, emphasizing their significance in contemporary society. It explores the historical development of human rights and examines various theories, including Natural, Legal, Utilitarian, and Marxist perspectives, to enablestudents to make broad examination of issues and policies taking into account diverse perspectives. The course delves into the universality of human rights amidst cultural diversity and assesses key international human rights instruments such as the Universal Declaration of Human Rights and subsequent international covenants and protocols. The course seeks to enable students to critically analyse the role of major international institutions like the UN, UNHRC, and UNOHCHR and their functions in promoting and protecting human rights. The course addresses contemporary issues and multidimensional threats to human rights to sensitize students on human rights issues in the local contexts. In the Indian context, it highlights the foundational principles of human rights, the institutional frame works along with the role of NGOs and civil society in human rights movements. Through this course, students will gain critical insights and analytical skills necessary to understand and address human rights challenges globally and within India.

Expected Learning Outcome:

After the completion of this course, the students would be competent in following skills and acquire adequate knowledge on the issues of Human Rights.

Unit I: They would understand the significance of human rights and its evolution over the period of time. Also, they would learn different human right theories and connotation of human rights across cultures.

Unit II: This unit would make them familiarise with international covenants on Human rights; the changing dynamics of state and role of global organisations working for the cause of HumanRights.

Unt III: After learning this unit, they would be aware about the multidimensional nature of human rights violation.

Unit IV: This unit would enlighten the students on Indian perspective of Human rights drawing upon ancient philosophy, Human rights issues in contemporary India, the institutional framework to address the human rights issues.

Unit I: Understanding Human Rights

Connotation of 'Rights'; Meaning, Nature and Significance of Human Rights. Evolution and Historical Development of Human Rights.
Theories of Human Rights: Natural, Legal, Utilitarian and Marxist;
Universality of Human Rights and cultural diversity.

Unit II: International Human Rights

International Covenants on Human Rights: Universal Declaration of Human Rights; International Covenants: Civil and Political Rights-1966, Economic, Social and Cultural Rights 1966; Optional Protocols-1976 and 1989, World Conference on Human Rights: Tehran 1968 and Vienna 1993.

Institutional Framework: UN, UN Human Rights Council (UNHRC), UN office of the High Commissioner for Human Rights (UNOHCHR).
State sovereignty and Human Rights; Human rights activism and role of Global Human Rights Organisations.

Unit III: Contemporary issues and Multidimensional aspect of threats to Human Rights.

Atrocities against Women, Children, SCs, STs, Minorities, Differently abled people.
Impact of Globalisation on Human Rights; Environment and Human rights issue.
Refugee crisis and Migrations, Displacement, Bonded Labour, Custodial abuse, Warcrimes.

Unit IV: Human Rights in India

Underlying Human rights Principles of Indian society: Dharma, Nyaya, Neeti, Ahimsa.
Institutional Framework: Constitutional provisions, NHRC, SHRC; Judicial Activism.
Human Rights Movements in India: Engagement of NGOs and Civil society inProtecting Human Rights.

Essential Readings:

Alan, B. (2017). Human rights and the environment: where next? In Challenges inInternational Human Rights Law (pp. 765-794). Routledge.
Barkin, J. S. (1998). The evolution of the constitution of sovereignty and the emergenceof human rights norms. Millennium, 27(2), 229-252.
Beitz, C. R. (2009). The idea of human rights. OUP Oxford.
Cerna, C. M. (1994). Universality of human rights and cultural diversity: Implementation of human rights in different socio-cultural contexts. Hum. Rts. Q., 16, 740.
Das, A. K., & Mohanty, P. K. (2007). Human rights in India. Sarup & Sons.
Donnelly, J., & Whelan, D. J. (2020). International human rights. Routledge.
Freeman, M. (2022). Human rights. John Wiley & Sons.
Gready, P. (2004). Conceptualising globalisation and human rights: boomerangs andborders. The International Journal of Human Rights, 8(3), 345-354.
Gudavarthy, A. (2008). Human rights movements in India: State, civil society and beyond. Contributions to Indian Sociology, 42(1), 29-57.
Henkin, L. (1989). The universality of the concept of human rights. The Annals of theAmerican Academy of Political and Social Science, 506(1), 10-16.
Henkin, L. (1995). Human rights and state sovereignty. Ga. J. Int'l & Comp. L., 25, 31.
Ishay, M. (2008). The history of human rights: From ancient times to the globalization era. Univ of California Press.
Kennedy, D. (2002). International human rights movement: Part of the problem?. Harv. Hum. Rts. J., 15, 101.
Kurki, M. (2011). Human Rights and Democracy Promotion: reflections on the contestation in, and the politico-economic dynamics of, rights promotion. Third World Quarterly, 32(9), 1573-1587.
Langlois, A. J. (2002). Human rights: the globalisation and fragmentation of moral discourse. Review of International Studies, 28(3), 479-496.
Merry, S. E. (2009). Human rights and gender violence: Translating international law into local justice. University of Chicago Press.
Ray, A. K. (2003). Human rights movement in India: A historical perspective. Economic and Political Weekly, 3409-3415.
Shelton, D. (2006). Human rights and the environment: what specific environmentalrights have been recognized. Denv. J. Int'l L. &Pol'y, 35, 129.
Sripati,V. (2000). India's National HumanRights Commission: A Shackled Commission. BU Int'l LJ, 18, 1.

Additional Readings:

Cole, W. M. (2005). Sovereignty relinquished? Explaining commitment to theinternational human rights covenants, 1966-1999. American sociological review, 70(3), 472-495.
Nyamu, C. I. (2000). How should human rights and development respond to cultural legitimization of gender hierarchy in developing countries. Harv. Int'l. LJ, 41, 381.
Oestreich, J. E. (2017). Development and Human Rights: rhetoric and reality in India. Oxford University Press.
Schmitz, H. P. (2014). Non-state actors in human rights promotion. The SAGE Handbook of Human Rights, 1, 352-71.
Internet Sources

HumanRights Course study materials in MA Political science.
https://www.distanceeducationju.in/pdf/404%20HUMAN%20RIGHTS.pdf
International HumanRights document, charters etc available at
https://csometer.info/international-human-rights-documents
Defining Human Rights: Harper Lecture, The University of Chicago.
https://youtu.be/2nYdTV9wuGI?si=EbZBuZvHR5gg4Ql5
Reflections on the Origins of Human Rights (Talal Asad Lecture), Berkeley Centre
https://youtu.be/Vd7P6bUKAWs?si=KIeG2rwRqvgxjCh6
Activities to Do
Students should be encouraged and facilitated to visit NHRC or SHRC office to learn the functioning of the commission.
Conduct lecture on contemporary issues on Human rights in India.
Arrange a movie session for the students on issues of Human Rights. Movies like 13th (2016), The Whistleblower (2010), Mandela: Long Walk to Freedom (2013), Jai Bhim (2021).
Conduct community outreach programmes to spread awareness on Human Rights Day.

SEMESTER-II (Credit-3)

Environmental Education

Course Learning Outcomes (CLOs):

On completion of the course, the students will be able to

- Understand the natural environment, different cycles related to Ecology & Ecosystem.
- Identity different causes of Environmental Pollution, Climate Change and need for Sustainable Development.
- Acquire comprehensive knowledge about Population Ecology, population Growth and Public Health.
- Learn about Environmental Movements and Laws.
- Acquire the knowledge about State pollution Control Board and Central pollutionControl Board.

Unit-I: Introduction to Environment Learning Outcomes

LO: *Understand basic concepts of Environment , Ecology, Eco-System and Biodiversity.*

The Environment: Atmosphere, Hydrosphere, Lithosphere, Biosphere.
Ecology, Ecosystem, major eco-system, Biogeochemical Cycle (Carbon Cycle, NitrogenCycle).
Biodiversity-Values and Services, Global Environmental Issues.

Unit-II: Climate Change and Sustainable Development

Learning Outcomes
LO: *Identify factors of pollution and climate change.*
LO: *Learn basics of wild life conservation and Sustainable Development Goals.*
Environment Pollution: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution,Thermal Pollution, Radiation Pollution.
Climate Change, causes and consequences, Natural Resources: Conservation of NaturalResources, Soil Erosion and Conservation.
Management and Conservation of Wildlife, Sustainable Development and its Goals.

Unit-III: Population and Public Health

Learning Outcomes
LO: *Understand the correlation between population growth and issues of public health.*
LO: *Learn how to manage pandemic in modern times.*
Population dividend and population liability.
Population Ecology: Individuals, Species, role of different sector in managing healthdisaster.
Population Growth and Control, Community, Urbanization and its effects on Society.
Communicable Diseases, Non-Communicable Diseases, Transmission and its effects.

Unit-IV: Environmental Movements and Environmental Laws

Learning Outcomes
LO: *Trace environmental movements of India.*
LO: *Understand functions and role of Pollution Control Boards and know the basic laws ofIndia relating to environment.*
Environmental Movements in India: Grass root Environmental movements in India,Role of

women, Environmental Movements in Odisha.
State Pollution Control Board, Central Pollution Control Board.
Environmental Laws: Water Act, 1974, Air Act, 1981, The Wildlife (Protection)Act,1972, Environment Protection Act 1986.

Sample Questions
What is meant by environment? (1 Mark)
Write any two causes of noise pollution. (2 Marks, Within 50 words))
Discuss the causes and consequences of climate change (5 Marks, Within 300 words))
Critically reflect on the importance and purpose of SDGs with reference to thecontemporary society. (8 Marks, 500 to 800 words).

Transaction Mode:

Workshop, ICT-Lab Learning, Lecture method, Seminar, Team teaching, Tutoring, Peer group discussion, Mobile teaching, Self-learning, Collaborative learning, Co-operative learning.

Practical/ Activities
Each student is required to submit Practical/Project report/Assignments selecting any one of the following:
Investigation of Major sources of micro- plastic pollutants in urban habitats.
Detection and characterisation of major water pollutants in river water.
Impact of growing urbanisation on wildlife habitat.

It will be evaluated by both internal and external examiners.

Text Books

Anubha Kaushik and CP Kaushik, "Perspectives in Environmental Studies", 5th edition, 2016.
Benny Joseph, "Environmental studies", 2nd edition, McGraw Hill Education, 2015.
Basics of Environmental Studies by Dr. N. S. Varandani, Books India Publications.
Disaster Management by MukeshDhunna, Vayu Education of India, Delhi Publication.

Reference Books
Dr. M. Chandrasekhar, "A Text book of Environmental Studies", HI-TECHpublications,2006.
Dr. M. Anji Reddy, "A Text book of environmental science and Technology", B SPublications, 2008.
Dr. K. Mukkanti, "A Text book of Environmental Studies", S.CHAND and CompanyLtd, 2009.
EHILRS and ST, "Text book of Municipal and Rural Sanitation", M.S Hill, 1998.
C. S. Rao, Wiley Eastern Ltd, "Environmental Pollution Control Engineering", NewAge International Ltd, 2001.
Dr. M. Anji Reddy, "Introduction to Remote Sensing", BS Publications, 2004.
EHILRS and ST, "Text book of Municipal and Rural Sanitation", M.S Hill, 1998.
Dr. M. Anji Reddy, "Introduction to Remote Sensing", BS Publications, 2004.
Environmental Studies by R. Rajagopalan, Oxford University Press Publication.
Environmental Science by Richard T Wright & Bernard J Nebel, Prentice Hall IndiaPublication.
Environmental Science by Daniel B Botkin & Edward A Keller, Wiley Publications.

SEMESTER-III (Credit-3)
Environmental Chemistry

Course Objective:

The objectives of a course in environmental chemistry typically aim to provide students with a deep understanding of the chemical processes occurring in the environment and their impacts on ecosystems, human health, and the planet as a whole with a comprehensive understanding of the components and processes of environmental systems, including the atmosphere, hydrosphere, lithosphere, and biosphere, and their interactions. Investigation of the chemical composition of environmental compartments, including the atmosphere (air pollutants), hydrosphere (water pollutants), and lithosphere (soil pollutants), and the sources, fate, and transport of pollutants in these compartments. To examine the chemical properties and toxicological effects of environmental pollutants on ecosystems and human health, including acute and chronic toxicity, bioaccumulation, biomagnification, and risk assessment.

Course outcomes:

- Gain a comprehensive understanding of the chemical processes occurring in the environment, including the sources, fate, and transport of pollutants
- Develop analytical skills in environmental chemistry, and apply a range of analytical techniques for the detection, and characterization of environmental pollutants.
- Aware of global environmental issues and challenges such as climate change, pollution, biodiversity loss, and resource depletion.
- Apply the principles of environmental chemistry for mitigating environmental pollution, promoting environmental conservation, and contributing to the development of environmentally friendly technologies and policies.

UNIT I

Environment Introduction, Composition of atmosphere, vertical temperature, heat budget of the earth atmospheric system, vertical stability atmosphere, Biogeochemical Cycles of C, N, P, S and O. Biodistribution of elements. Hydrosphere Chemical composition of water bodies- takes, streams, rivers and wet lands etc. Hydrological cycle. Aquatic pollution-inorganic, organic, pesticide agricultural, industrial and sewage, detergents, oil spills and oil pollutants. Water quality parameters-dissolved oxygen, biochemical oxygen demand, solids, metals, content of chloride, sulphate, phosphate, nitrate and mocro-organisms. Water quality standards,Analytical methods for measuring BOD, DO, COD, F, oils, metals (As, Cd, Cr, Hg, Pb, Se etc)residual chloride and chlorine demand. Purification and treatment of water.

UNIT II

Soils composition, micro and macro nutrients, pollution-fertilizers, pesticides, plastics and metals, waste treatment Atmosphere Chemical composition of atmosphere-particles, ions and radicals and their formation. Chemical and photochemical reactions in atmosphere, smog formation, oxides of N, C, S, O and their effect, pollution by chemicals, petroleum, minerals, chlorofluorohydrocarbons. Greenhouse effect, acid rain, air pollution controls and their chemistry. Analytical methods for measuring air pollutants. Continuous monitoring instruments.

UNIT III

Industrial Pollution Cement, Sugar, distillery, drug, paper and pulp, thermal power plants, nuclear power plants, metallurgy. Polymers, drugs etc. Radionuclide analysis. Disposal of wastes and their management.

UNIT IV

Environmental Toxicology, Chemical solutions to environmental problems, biodegradability, principles of decomposition.

Text Books

Environmental Chemistry, A. K. De, Wiley Eastern
Environmental Chemistry, S.E. Manahan, Lewis Publishers
Environmental Chemistry with Green Chemistry, A. K. Das, Books & Allied (P) Ltd.,Kolkata, 1st Edn, 2010

References Books

Environmental Chemistry, S.E. Manahan, Lewis Publishers
Environmental Chemistry with Green Chemistry, A. K. Das, Books & Allied (P) Ltd.,Kolkata, 1st Edn, 2010
Environmental Toxicology, Ed. J. Rose, Gordon and Breach Science Publication
Erach Bharucha. Textbook of Environmental Studies, Universities Press, 2005