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### **DEPARTMENT OF ANTHROPOLOGY**

### **SEMESTER – II**

#### **B.Sc. (Hons) Anthropology**

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# **Syllabus for Semesters II**

## **Semester II**

### **DSC Paper 4: Human Origins and Evolution**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credit]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

## **Course Objectives**

1. The course will enhance students understanding of human variation in the light of human origins.
2. The course will help students to develop concepts pertaining to the relation of modern humans with living and non-living primates.

## **Course Learning Outcomes**

Students will learn on evolutionary relationships of different extinct/hominids in the context of emergence of modern human beings. Students will also learn the gradual biological and behavioral processes of becoming human.

### **Unit-1**

Primate origins and radiation: phylogenetic relationships of living primates with special reference to Miocene hominoids

### **Unit-2**

Australopithecines: distribution, features and their phylogenetic relationships. Appearance of genus Homo: Homo habilis

Homo erectus from Asia, Europe and Africa: Distribution, features and their phylogenetic status

### **Unit-3**

The origin of Homo sapiens: Fossil evidences of Neanderthals.

Origin of modern humans (Homo sapiens sapiens): Archaic and Modern humans, Distribution and features

### **Unit-4**

Hominization process: Bio-cultural Evolution

## **Practical**

### **Craniometry:**

- a) Maximum Cranial Length
- b) Maximum Cranial Breadth
- c) Maximum Bizygomatic Breadth
- d) Maximum Frontal Breadth
- e) Minimum (Least) Frontal Breadth
- f) Nasal Height
- g) Nasal Breadth
- h) Bi-Mastoid Breadth
- i) Greatest Occipital Breadth
- j) Upper Facial Height
- k) Cranial Index
- l) Nasal Index

### **Osteometry:** Measurements of Human long bones (6)

Identification of casts of fossils of family hominidae: Drawing and comparison of cranial characteristics.

## **References**

1. Indera P. Singh and Bhasin, M.K. (1968) Anthropometry. Kamla-Raj Enterprises, Chawri Bazar, Delhi.

2. Buettner-Janusch, J. (1966). *Origins of Man: Physical Anthropology*. John Wiley & Sons, Inc., New York, London, Sydney.
3. Craig Stanford et al. (2013). *Biological Anthropology*. Pearson, New York. [Unit-1: Page-261-300; Unit-2: Page-324-335; Unit-3: Page-342-375; Unit-4: Page-382-412; Unit-5 and 6: Page-418-441]
4. Nystrom P. and Ashmore P. (2011). *The Life of Primates*. PHI Learning Private Limited, New Delhi.
5. Seth P. K. and Seth S. (1986). *The Primates*. Northern Book Centre, New Delhi, Allahabad.
6. Singh I. P. and Bhasin M.K. (1989). *Anthropometry: A Laboratory Manual on Biological Anthropology*.
7. Stanford C.; Allen J.S. and Anton S.C. (2012). *Biological Anthropology: The Natural History of Mankind*.
8. Swindler D. R. (2009). *Introduction to the Primates*. Overseas Press India Pvt. Ltd., New

### **Teaching Learning Process**

1. Class Room Presentations using digital methods
2. Practical classes
3. Seminars and presentation by students

**Assessment Methods:** Theory and Practical Examination (including Practical File)

### **Keywords**

Human origin, Primates, Australopithecine, Homo erectus and evolution

## **Semester II**

### **DSC 5: Fieldwork Traditions and Ethnography**

**[Total Course Credits: 4; Theory: 3 credits, Practical 1 credit]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

#### **Course Objectives:**

##### **The aim of the course is to understand:**

- How ethnographers conceptualize, conduct, and analyse their research;
- The types of research practices for generating data
- The ethics of ethnographic research, in relationship to disciplinary history

#### **Course Learning Outcomes:**

- Ability to conduct ethnographic research
- Generate data and write field notes
- Analyse and interpret ethnographic data

#### **Unit 1 Fieldwork Tradition**

The emergence of fieldwork tradition in Anthropology; Ethnography, its Nature, Trajectories, Genres; Ethnography: Process and Product

#### **Unit 2 Idea of Field**

Concept of field: Idea of Place and Space, and its changing contours, Multi-sited Ethnography and Virtual Spaces.

#### **Unit 3 Doing ethnography**

Doing ethnographic Fieldwork: Fieldwork Identity; Rapport and Relations; Representation and Emotions; Ethical issues.

#### **Unit 4 Field Methods and Writing**

Observation, Interview, Case Study, Life History, Genealogy, Sensory Ethnography, Reflexivity and Ethnographic Writing

#### **Practical**

Designing Ethnographic Research: Identifying a problem, Defining the universe, Literature Review, selecting appropriate methods; doing Fieldwork: field diaries and field notes; Analysis and Writings.

1. Students are required to visit different field sites and come up with observational and experiential learnings
2. Presentations based on a Research Project

#### **References**

1. Clifford, J., & Marcus, G. E. (2011). *Writing culture: The poetics and politics of ethnography*. Berkeley, California: University of California Press.
2. O'Reilly, K. (2009). *Key Concepts in Ethnography (SAGE key concepts)*. Sage Publications.
3. Narayan, K. (2012). *Alive in the writing: Crafting ethnography in the company of Chekhov*. Chicago: University of Chicago Press.
4. Robben, C.G.M. and Jeffrey A. Sluka. (2012). *Ethnographic Fieldwork: An Anthropological Reader*. Oxford: Wiley-Blackwell.

5. Srinivasa, M. N., Shah, A. M., & Ramaswamy, E. A. (2008). *The fieldworker and the field*. New Delhi: Oxford University Press.
6. Srivastava, V. K. (2005). *Methodology and fieldwork*. New Delhi: Oxford University Press.

Teaching Learning Process Classroom Teachings, Seminars and presentations Fieldwork  
Practical classes

**Assessment Methods:**

Theory and practical examinations (including practical records)

**Keywords:** Fieldwork, Ethnography, Ethics, Writing, Reflexivity

## **Semester II**

### **DSE Paper 6: Human ecology and biological adaptation**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

#### **Course Objectives**

1. To introduce human ecology through biological perspectives where impetus will be laid on building a sense of awareness, empathy and understanding of existing environmental problems at various subsistence levels.
2. The course focuses on environmental matters that need attention on imperative basis.

#### **Course Learning Outcomes**

1. The students will be trained to identify biological adaptation strategies that can throw light on the resilient measures in different environmental stresses.
2. The students can be better equipped to understand the impact of various environments on everyday human life and can critically reflect on adoption of a healthy and sustainable environment.
3. The students can be encouraged to come up with innovative strategies to reduce the environmental menace created by humankind and aim towards a sustainable future.

#### **Unit I: Fundamentals of Human ecology**

- Human ecology and its interdisciplinary approaches
- Complexity and diversity of human population with respect to environment
- Concepts of human ecology and adaptation with special emphasis on biological dimensions

#### **Unit II: Tools to understand human ecology**

- Methods of studying human ecology
- Indigenous knowledge for sustainability in various environments

### **Unit III: Human adaptation: Population and environment**

- Adaptation to various ecological stresses
- Ecological rules and their applicability to human populations

### **Unit IV: Human health and environment**

- Impact of various environments on human health
- Impact of urbanization and industrialization on humans

### **Practical**

#### ***A. Size and Shape Measurements:***

1. Stature
2. Sitting Height
3. Body Weight
4. Total Upper Extremity Length
5. Total Lower Extremity Length
6. Nasal Breadth
7. Nasal Height

#### ***B. Size and Shape Indices:***

1. Body Mass Index

2. Relative Sitting Height
  3. Relative Upper Extremity Length
  4. Relative Total Lower Extremity Length
  5. Nasal Index
- C. 1-2 public talks/workshops/project over the academic semester on research topics on human ecology and biological adaptation. These talks would bring students with brainstorming discussion on current issues.

## References

1. H. Schutkowski. (2006) Human Ecology: Biocultural adaptations in Human communities, Springer Verlag, Germany (Unit 1).
2. Wilk. Richard and Haenn Nora (2006). The environment in Anthropology. New York University Press. NY. (Unit 2).
3. Ember and Ember (2014) Anthropology, Pearson publication, Hudson Avenue, New Jersey. (Unit 3)
4. Wilk. Richard and Haenn Nora (2006): The environment in Anthropology. New York University Press. NY. (Unit 4)

## Teaching Learning Process

1. Classroom teachings
2. Seminars and presentations
3. Practical classes
4. Workshop

**Assessment Methods:** Theory and practical examinations (including practical records)

**Keywords:** adaptation, human ecology, ecological stresses, health

## **GE Paper-7: Physical fitness, Activity and Performance**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

### **Course Objectives:**

The course is structured around the relevance of being physically fit in today's environment. It will further focus on increasing one's performance and activity through anthropological knowledge.

### **Course Learning Outcomes:**

1. The students will learn about various components of health-related and skill related physical fitness.
2. The students will learn about the importance of physical fitness in performing and sustaining daily activities.
3. They will also learn about the relevance of physical fitness and performance in sports science and how it helps in designing the most appropriate athletic training program.
4. They will learn how anthropological knowledge is of immense importance in fitness and performance.

### **Unit I: Introduction to physical fitness and performance**

Definition, scope, and relevance of physical fitness and performance, ways to improve physical fitness and performance, various types of physical fitness and performance test

### **Unit II: Measure of physical fitness and performance**

Cardiovascular endurance, Muscular strength, Muscular endurance, Flexibility, Body composition, skill related components of physical fitness

### **Unit III: Physical fitness and performance in sports and health science**

Importance of physical fitness and performance in preventing chronic and lifestyle disease, talent identification in sport science by determining an athlete's strengths and weaknesses, doping and performance.

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## Unit IV: Anthropological knowledge in physical fitness and performance

Relevance of anthropology in studying physical fitness, activity and performance, understanding physical fitness and performance by taking into consideration the ethnic and racial differences

### **Practical**

1. Physical fitness and performance test
2. **Physiological Measurements-** Blood pressure, Heart rate, Pulse rate
3. **Somatometric Measurements-** Height, weight, skinfolds, hip circumference, waist circumference, mid-upper arm circumference, neck circumference, calf circumference, thigh circumference

1-2 workshops/projects over the academic semester on topics related to anthropology. It would bring students to brainstorming discussions on current issues and help them develop innovative ideas.

### **References:**

1. Physical working capacity and physical fitness; relationship of body measurements with cardio-vascular and respiratory functions- Physical Activity and Health by C. Bouchard, S.N Blair, W.L Haskell Chapter 3(Page 37-42)
2. Iruiria, Alfredo, Víctor M. Torres-Mestre, Álex Cebrián-Ponce, Marta Carrasco-Marginet, Albert Altarriba-Bartés, Marc Vives-Usón, Francesc Cos, and Jorge Castizo-Olier. "Physical Fitness and Performance in Talented & Untalented Young Chinese Soccer Players." In *Healthcare*, vol. 10, no. 1, p. 98. MDPI, 2022.
3. Vaara, Jani P., Heikki Kyröläinen, Jaakko Niemi, Olli Ohrankämmen, Arja Häkkinen, Sheila Kocay, and Keijo Häkkinen. "Associations of maximal strength and muscular endurance test scores with cardiorespiratory fitness and body composition." *The Journal of Strength & Conditioning Research* 26, no. 8 (2012): 2078-2086.
4. Pate, Russell, Maria Oria, and Laura Pillsbury. "Health-related fitness measures for youth: flexibility." In *Fitness Measures and Health Outcomes in Youth*. National Academies Press (US), 2012.
5. Chen, W., Hammond-Bennett, A., Hypnar, A., & Mason, S. (2018). Health-related physical fitness and physical activity in elementary school students. *BMC public health*, 18(1), 195. <https://doi.org/10.1186/s12889-018-5107-4>

6. Donnelly, J. E., Hillman, C. H., Castelli, D., Etnier, J. L., Lee, S., Tomporowski, P., Lambourne, K., Szabo-Reed, A. N., & This summary was written for the American College of Sports Medicine by (2016). Physical Activity, Fitness, Cognitive Function, and Academic Achievement in Children: A Systematic Review. *Medicine and science in sports and exercise*, 48(6), 1223–1224. <https://doi.org/10.1249/MSS.0000000000000966>
7. Eston, R. and Reilly, T. (2009). KINANTHROPOMETRY AND EXERCISE PHYSIOLOGY LABORATORY MANUAL Volume One: Anthropometry. Tests, procedures and data. Routledge.

### **Teaching Learning Process**

- Classroom teachings
- Seminars and Interactive sessions
- Practical classes/ Field work

**Assessment Methods:** Theory and practical examinations (including practical records)

**Keywords:** Physical fitness, performance, health science

## **GE Paper-8: Customary Law**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

### **Course objectives:**

The course is designed to help students understand the approaches to the study of different types of law, particularly customary law. It will also help students to learn the contradictions, inconsistencies inherent in the interface between customary law and the state law.

**Course Learning Outcome:** On completion of the course, students will be able to:

- Locate nuances of diverse customs from around the world based on ethnographic works.
- Make critical evaluation of gendered laws which are intricately enmeshed within the social fabric.
- Gain insights into the workings of state agency that blurs the boundary of customary law and the state.

### **Unit 1: Understanding Customary Law**

Customary Law: Concepts and Approaches; Types of Customary Law: Restitutive, Repressive; Anthropological literature: Bronislaw Malinowski, Evans-Pritchard, Meyer Fortes, Max Gluckman, Leopold Pospisil

### **Unit 2: Custom, Crime and Justice**

Law and Justice in simple societies; Classification of Crimes among indigenous communities; Oath taking and Ordeal; modes of dispute settlement

### **Unit 3: Gender and Customary Law**

Gendered laws, Inheritance, Succession, Custody of Children and Properties, Political Representation

### **Unit 4: Customary Law and the State Law**

Interface between customary law and state law; Codification of customary law and its implications

### **Practical**

- Review of ethnographic works and find out: (i) types of crime, (ii) modes of dispute settlement, (iii) rationale behind ordeals/oaths.

- Project report on (i) customary law and the state law interface, or (ii) Cultural context of a dispute and search for its settlement in one or other legal domains.

### **References:**

1. Evans-Pritchard, E. E and Meyer Fortes. 1940. *African Political Systems*. London: Oxford University Press.
2. Gluckman, Max. 1956. *Custom and Conflict in Africa*. Basil Blackwell Ltd.
3. Malinowski, B. 1926. *Crime and Custom in Savage Society*. London: Routledge & Kegan Paul Ltd.
4. Pospisil, Leopold. 1971. *Anthropology of Law: A comparative theory*. New York: Harper and Row Publishers.
5. Srivastava, Vinay Kumar. 2021. *India's Tribes: Unfolding Realities*. New Delhi: Sage Publications Indian Pvt. Ltd.
6. Zhimo, A.G. 2019. 'Indigenous system of Governance and its implication: The case of Sumi Naga. *Indian Anthropologist*. 49 (2): 41-56.

### **Teaching Learning Process**

Lectures and Discussions

Seminars and Presentations

### **Assessment Methods:**

Practical assignments/ project reports, theory and practical examination at the end of term.

### **Keywords:**

Customary law, oath taking, custom, dispute, state law

## **GE Paper-9: Ethics and Legality in Human Research**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

### **Course Objectives**

1. To understand bio-social ethical aspects of human research
2. To understand aspects of health research from ethical and legal perspectives

### **Course Learning Outcomes**

The students will learn the basic understanding of ethics in different types of human research and learn the skills to assess ethical dimensions of research works based on human populations

**Unit 1:** Introduction to the ethical dimensions of human research; history of ethics in human research; Ethical vs legal regulations

**Unit 2:** Research Disclosure; Importance of Truth telling; Participant Information sheet; Participant's Capacity to understand human research, Voluntariness and Consent,

**Unit 3:** Human rights; Confidentiality of participant's information; Risks and benefits, Vulnerability, research integrity

**Unit 4:** Ethical guidelines of Indian Council of medical Research; Regulatory framework

**Practical:** Report of ethical assessment based on research work related to human research

### **References**

Macklin R. Ethics in global health: research, policy, and practice [1 ed.]. Oxford University Press, 2012

Stephen Garrard Post Encyclopedia of bioethics [Volume 3, 3rd ed]. Macmillan Reference USA, 2004

Alastair V. Campbell. Bioethics: The Basics [1 ed.]. Routledge, 2013

### **Teaching Learning Process**

The process of learning will involve acquisition of domain knowledge and understanding of skills required for assess ethical dimensions in human research. Process will involve lectures and presentations and report submission.

**Assessment Methods**

Theoretical understanding of the student will be assessed using time-constrained examination. Practical examination will be based on project report prepared by the students.

**Keywords**

Ethics, human, participants, consent, confidentiality

## **GE Paper-10: Quality of life and well-being**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

### **Objectives:**

- To understand the concept of QoL and well-being.
- To learn about various domains and indicators related to QoL and well-being.
- To know the measures of QoL and well-being as per different community or geographical setting.
- To identify the similarity and differences in these two concepts.
- To understand the change in QoL and well-being as per disease severity and duration of symptoms in different age group and gender.

### **Learning outcomes:**

- Learner will be able to understand the basic concept of QoL and well-being.
- Information about measures of well-being and QoL will be instilled.
- Learners will get to know about indicators and theoretical models of well-being and QoL
- Knowledge about evaluation of chronic illness treatment through wellbeing and HRQoL will be imparted.

### **Unit 1: Fundamentals of quality of life and well being**

Concept of Quality of life (QoL), subjectivity and multidimensionality models, standard of living, life satisfaction, philosophical foundation, definitions and measures of QoL and well being

### **Unit 2: QoL and Chronic illness**

Quality of life as an evaluation tool for the treatment (HRQoL), functioning domains under QoL: physical, mental, emotional, intellectual, spiritual, and social functioning, impact of Covid-19 on QoL and well-being

### **Unit 3: Theories and indicators of QoL and well-being**

Hedonic and Eudaimonic well-being, objective, subjective and relational well-being, integrative theories of subjective QoL. Effect of technology, economic, political, socio-cultural, resource, domain dynamics on QoL and well-being.

## **Unit 4: Types of well-being**

Work, residential, material, social, family, marital, health, leisure. quality of life and well-being of Women, older adults, children, youth, geographic population segments etc.

### **Practical:**

To assess QoL and wellbeing of different population at different age groups.

1-2 workshops/projects over the academic semester on topics related to quality of life and wellbeing in anthropology. It would bring students to brainstorming discussions on current issues and help them develop innovative ideas.

### **References:**

1. An Interdisciplinary Perspective edited by Shruti Tripathi, Rashmi Rai, Ingrid Van Rompay-Bartels, 1<sup>st</sup> edition, 2021, CRC press, Boca Raton  
<https://doi.org/10.1201/9781003009139>
2. <https://www.springer.com/series/8365>
3. Handbook of Active Ageing and Quality of Life, 2021, ISBN: 978-3-030-58030-8
4. Well-Being as a Multidimensional Concept: Understanding Connections among Culture, Community, and Health, 2019, EDITED BY JANET M. PAGE-REEVES
5. Upton, D., Upton, P. (2015). Quality of Life and Well-Being. In: Psychology of Wounds and Wound Care in Clinical Practice. Springer, Cham.  
[https://doi.org/10.1007/978-3-319-09653-7\\_4](https://doi.org/10.1007/978-3-319-09653-7_4)
6. <https://www.cdc.gov/hrqol/wellbeing.htm>

### **Teaching Learning Process**

1. Classroom teachings
2. Seminars and Interactive sessions
3. Practical classes/ Field work

**Assessment Methods:** Theory and practical examinations (including practical records)

**Keywords:** Quality of life, wellbeing, Hedonic, Eudaimonic

**Prerequisite:** Candidates are required to have passed the Class 12 or equivalent exam with Science stream (Biology essential)

## **GE Paper-11: Tribes of India**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

**Course Objectives:** The course is designed to help students understand the contested and problematic nature of the term 'tribe' and its definitional attributes. It also seeks to elucidate pressing issues faced by the tribes in India by focus on the contemporary issues, challenges and crisis that confront the rural and tribal communities in India.

**Course learning outcomes:** At the end of the course, the student will be able to:

1. Comprehend the problematic nature of the concepts of tribe and indigenous; how it differs from caste.
2. Understand critical issues, problems and challenges related to tribal societies both in historical and contemporary perspectives.
3. Evaluate, plan and implement any project work in rural and tribal areas and be able to suggest remedial measures for critical issues.

### **Unit 1: On the concept of tribe**

Concept and approaches to the study of tribes; classification, distribution and cosmogeny of tribes in India; Scheduled Tribe and Indigenous people; Particularly Vulnerable tribal groups

### **Unit 2: Tribes and institution**

Tribal kinship system, types of family, rules of marriage, tribal polity and governance, subsistence economy and tribal market, tribal religion: nature-man-spirit complex, witchcraft

### **Unit 3: Tribes, Development, and Globalization:**

Impact of development schemes on tribal societies; Displacement caused by large infrastructure projects; Globalization and the shift from isolation to integration.

### **Unit 4: Tribes and Policy**

National Tribal Policy; Forest Rights, Food security, land acquisition, mining, tribal migrants

### **Practical**

Practical would involve examination of material culture including technologies used by the hunter and gatherers, horticulturalist pastoral and agriculture communities. Functional analysis of traps for fishing, hunting, digging stick, sickle and different types of knives and other equipment used for hunting. Different types of house forms, dress patterns etc. and their ecological adaptation in different

climatic zones will also be required to be studied functionally as well as from a structural point of view. Students would also prepare a project report based upon empirical data collected on tribal issues.

### **References:**

Bailey, F.G. 1960. Tribes, caste and Nations: A study of political activity and political change in tribal Orissa.

Béteille, André. 1998. The Idea of Indigenous People. *Current Anthropology*, Vol. 39, No. 2 (April 1998), pp. 187-192.

Bhandari, J. S., and Subhadra Channa. 1997. Tribes and government policies. New Delhi: Cosmo Publications

Channa, Subhadra Mitra. 2020. Anthropological Perspectives on Indian Tribes. New Delhi: Orient Blackswan Private Limited

Chaudhury, Sukant K., and Patnaik, Soumendra Mohan. 2008. Indian Tribes and the `Mainstream. New Delhi. Rawat Publisher

Fürer-Haimendorf, Christoph von. 1985. Tribal populations and cultures of the Indian subcontinent. *Handbuch der Orientalistik*, Bd. Leiden: E.J. Brill.

Miri, Mrinal. 2003. Identity and the moral life. New Delhi: Oxford University Press.

Vidyarthi, L.P. 1977. Tribal Culture of India: concept publishing company.

Xaxa, Virginus. 2008. State, society, and tribes: issues in post-colonial India. New Delhi: Dorling Kindersley (India)

### **Teaching Learning Process**

Lectures and Discussions

Seminars and Presentations

### **Assessment Methods:**

Practical assignments/ project reports; theory, and practical examination at the end of term.

**Keywords:** Scheduled Tribe, Caste, Tribal Development, Tribal Policy, Indigenous People

## **GE Paper-12: Environment and Health**

**[Total Course Credits: 4; Theory- 3 credits; Practical- 1 credits]**

**(Teaching hours required: Theory, 45 hours; Practical, 30 hours)**

### **Course Objectives**

1. To understand basic concepts of environmental health
2. To assess environmental pollutant classes
3. To assess the risk of environmental exposures and health impacts

### **Course Learning Outcomes**

The students will learn the basic concepts of environmental and health, various exposures and pollutant classes, burden of disease and health impacts of ecological exposures

**Unit 1:** Introduction to environment health. Epidemiological studies related to environmental health

**Unit 2:** Water, Sanitation and Hygiene; impact of air pollution (ambient and indoor), water pollution and noise pollution on human health

**Unit 3:** Human health under different socio-cultural environment, Built environment, Urban environment, Green spaces and occupational hazards, hygiene and health

**Unit 4:** Food safety, toxins and waste management, chemicals and heavy metals

**Practical:** Project report based on data collection related to environmental health

### **References**

1. Hermen Koren. Handbook of environmental health and safety [volume\_II, 4th ed.].  
CRC Press, 2002
2. Morton Lippmann. Environmental toxicants: human exposures and their health effects  
[3rd ed]. John Wiley & Sons, 2009
3. B. Wisner J. Adams. Environmental Health in Emergencies and Disasters [1 ed.].  
World Health Organization, 2003

4. Bernard J. Healey, Kenneth T. Walker. Introduction to Occupational Health in Public Health Practice (Public Health Environmental Health) [1 ed.]. Jossey-Bass;2009

### **Teaching Learning Process**



The process of learning will involve acquisition of domain knowledge and understanding of skills required for conducting research in environmental health. Process will involve lectures and presentations and report submission.

### **Assessment Methods**

Theoretical understanding of the student will be assessed using time-constrained examination. Practical examination will be based on project report prepared by the students.

### **Keywords**

Pollutants, Environment, Exposure, Assessment, Water and Air pollution, social environment

  
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