

Revised
SYLLABUS FOR
Bachelor of Science (Honours)

ANTHROPOLOGY

THREE YEAR DEGREE COURSE
SEMESTER SYSTEM

(Under New UGC CBCS Guidelines)

COURSE STRUCTURE

| SEMESTER | COURSE | COURSE NAME | COURSE CODE | CREDIT |
|----------------------------|--------------------------------|--|----------------------------|--------|
| I | Core 1 | Introduction to Biological Anthropology (Theory) | ANC 1.11 | 4 |
| | | Introduction to Biological Anthropology (Practical) | ANC 1.12 | 2 |
| | Core 2 | Introduction to Social Anthropology (Theory) | ANC 1.21 | 4 |
| | | Introduction to Social Anthropology (Practical) | ANC 1.22 | 2 |
| II | Core 3 | Archaeological Anthropology (Theory) | ANC 2.11 | 4 |
| | | Archaeological Anthropology (Practical) | ANC 2.12 | 2 |
| | Core 4 | Fundamentals of Human Origin & Evolution (Theory) | ANC 2.21 | 4 |
| | | Fundamentals of Human Origin & Evolution (Practical) | ANC 2.22 | 2 |
| III | Core 5 | Tribes and Peasants in India (Theory) | ANC 3.11 | 4 |
| | | Tribes and Peasants in India (Practical) | ANC 3.12 | 2 |
| | Core 6 | Human Ecology: Biological & Cultural Dimensions (Theory) | ANC 3.21 | 4 |
| | | Human Ecology: Biological & Cultural Dimensions (Practical) | ANC 3.22 | 2 |
| | Core 7 | Biological Diversity in Human Populations (Theory) | ANC 3.31 | 4 |
| | | Biological Diversity in Human Populations (Practical) | ANC 3.32 | 2 |
| | Skill Enhancement Course 1 | Tourism Anthropology | ANS 3.11 | 2 |
| IV | Core 8 | Theories of Culture & Society (Theory) | ANC 4.11 | 4 |
| | | Theories of Culture & Society (Practical) | ANC 4.12 | 2 |
| | Core 9 | Human Growth and Development (Theory) | ANC 4.21 | 4 |
| | | Human Growth and Development (Practical) | ANC 4.22 | 2 |
| | Core 10 | Research Methods (Theory) | ANC 4.31 | 4 |
| | | Research Methods (Practical) | ANC 4.32 | 2 |
| Skill Enhancement Course 2 | Anthropology of Disaster | ANS 4.11 | 2 | |
| V | Core 11 | Human Population Genetics (Theory) | ANC 5.11 | 4 |
| | | Human Population Genetics (Practical) | ANC 5.12 | 2 |
| | Core 12 | Anthropology in Practice (Theory) | ANC 5.21 | 4 |
| | | Anthropology in Practice (Practical) | ANC 5.22 | 2 |
| | Discipline Specific Elective 1 | Sports and Nutritional Anthropology (Theory) OR Forensic Dermatoglyphics (Theory) | AND 5.11(a) AND 5.11(b) | 4 |

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|-----------|--------------------------------|--|-----------------------------|----------|
| | | Sports and Nutritional Anthropology (Practical) OR Forensic Dermatoglyphics (Practical) | AND 5.12(a) AND 5.12(b) | 2 |
| | Discipline Specific Elective 2 | Anthropology of Health (Theory) OR Tribal Cultures of India (Theory) | AND 5.21(a) AND 5.21(b) | 4 |
| | | Anthropology of Health (Practical) OR Tribal Cultures of India (Practical) | AND 5.22(a) AND 5.22(b) | 2 |
| VI | Core 13 | Forensic Anthropology (Theory) | ANC 6.11 | 4 |
| | | Forensic Anthropology (Practical) | ANC 6.12 | 2 |
| | Core 14 | Anthropology of India (Theory) | ANC 6.21 | 4 |
| | | Anthropology of India (Practical) | ANC 6.22 | 2 |
| | Discipline Specific Elective 3 | Indian Archaeology (Theory) OR Palaeo-anthropology (Theory) | AND 6.11(a) AND 6.11(b) | 4 |
| | | Indian Archaeology (Practical) OR Palaeo-anthropology (Practical) | AND 6.12(a) AND 6.12(b) | 2 |
| | | Discipline Specific Elective 4 | Dissertation / Project Work | AND 6.21 |

Note: Student will opt either dissertation or project work or one paper from the elective discipline course in 6th Semester. He will be attached with one supervisor or guide.

SEMESTER - I

CORE 1 (ANC 1.11)

INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

Theory Credit: 4

Teaching Hours: 60

- UNIT I** History of Physical Anthropology and development of Modern Biological Anthropology, aim, scope and its relationship with allied disciplines.
1. Difference in the approaches of modern and traditional Biological Anthropology, with emphasis on human evolution.
- UNIT II** History and development of understanding human variation and evolutionary thought.
1. Theories of evolution. Lamarckism, Neo Lamarckism, Darwinism, Synthetic theory, Mutation and Neo-Mutation theory.
- UNIT III** Position of Mans place in animal Kingdom,
1. Classification and characteristics of living primates.
2. Comparative anatomy and behavior of human and non-human primates.
- UNIT IV** Human Morphology:
i) Human skeletal anatomy & functional morphology of bones as part of total skeleton, functions, classification of bones, anatomical positions, articulations of bones & their functions.
- UNIT V** Human genetics:
Concept of cell & cell division, Mendel's law of inheritance, single & multiple factor inheritance, sex-linked inheritance, ABO & Rh inheritance.

CORE 1 (ANC 1.12)

INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

Practical Credit: 2

Teaching Hours: 30

- Somatometry**
 - Maximum head length
 - Maximum head breadth
 - Maximum bizygomatic breadth
 - Bigonial breadth
 - Nasal length
 - Nasal height
 - Nasal breadth
 - Morphological facial height
 - Morphological upper facial height
 - Head circumference
- Cephalic indices:** cephalic, nasal, upper facial height, total facial height, jugo-mandibular.
- Somatoscopy:** skin, hair, forehead, ear, eye, eyebrow, nose, chin, and malar prominence

Recommended Books and References:

1. Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). Introduction to Physical Anthropology. Wadsworth Publ., USA
2. Kroeber A. L. (1948). Anthropology. Oxford & IBH Publishing Co., New Delhi.
3. Stanford C., Allen J.S. and Anton S.C. (2010). Exploring Biological Anthropology. The Essentials. Prentice Hall Publ, USA.
4. Statement on Race: Annotated Elaboration and Exposition of the Four Statements on Race (1972). Issued by UNESCO. Oxford University Press.
5. Das, B.M & Ranjan – Physical Anthropology Practical
6. Jannusch, J. Buettner – origins of Man
7. Hootan, E.A - up from the Ape
8. Comas, J – Manual of Physical Anthropology
9. Sarkar, R.M – Fundamentals of Physical Anthropology

CORE 2 (ANC 1.21)

INTRODUCTION TO SOCIO-CULTURAL ANTHROPOLOGY

Theory Credit: 4

Teaching Hours: 60

UNIT I Definition, scope and relevance of socio-cultural Anthropology; Relationship of socio cultural Anthropology with other disciplines.

UNIT II Concept of society and culture: status and role, social groups and institutions, social stratification and civil society.

UNIT III Social Institution (Basic concepts: Family, Marriage and Kinship)
Family: Definition, function, types of family.
Marriage: Definition, function and types of marriage.
Kinship: Definition, usages, classification, terminology, descent group, kin group, lineage, clan, phratry and moiety

UNIT IV Social and Culture change: Definition, characteristics and factors of change.

UNIT V Religion and Magic:
Religion: Functions and Theories of religion, Animism. Manaism, Totemism.
Magic: Functions, types and principles of magic.
Magico-religious functionaries- priests, shamans, sorcerer and witch.
Science, religion and magic.

CORE 2 (ANC 1.22)

INTRODUCTION TO SOCIO-CULTURAL ANTHROPOLOGY

Practical Credit: 2

Teaching Hours: 30

Genealogical studies.

Students will learn how to structure genealogical ties like marriage, family, inheritance pattern etc

Recommended Books and References:

1. Ember C. R. et al. (2011). *Anthropology*. New Delhi: Dorling Kindersley.
2. Ferraro G. and Andreatta S. (2008). In *Cultural Anthropology: An Applied Perspective*. Belmont: Wadsworth.
3. Rapport N. and Overing J. (2004). *Key Concepts in Social and Cultural Anthropology*. London: Routledge.
4. Frazer James (1911). *The Golden Bough*. London: Macmillan
5. Madan T. N. and Majumdar D.N. (1987) *An Introduction to Social Anthropology*. New Delhi: National Publishing House.
6. Mair Lucy (1972). *An Introduction to Social Anthropology*. New Delhi: Oxford University Press
7. Malinowski Bronislaw (). *Magic, Science and Religion*.
8. Kroeber A.L. (1923). *Anthropology*. New York: Harcourt, Brace.
9. Roy Indrani Basu (2003). *Anthropology The Study of Man*. New Delhi: S. Chand & Company Ltd.
10. Scupin Raymond and DeCorse Christopher R. (). *Anthropology: A Global Perspective*.
11. Sharma R.N. *Social and Cultural Anthropology*. Delhi: Surjeet Publications
12. Tylor E.B. (1871). *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Language, Art and Customs*. London: J. Murray.

SEMESTER -II

CORE 3 (ANC 2.11) ARCHAEOLOGICAL ANTHROPOLOGY

Theory Credit: 4

Teaching Hours: 60

UNIT I Introduction:

- Definition and scope of archaeological anthropology
- Relation with other disciplines
- Methods of studying archaeological anthropology

UNIT II Methods of Estimation of Time and Reconstruction of the Past
Absolute dating methods, radio-carbon, potassium argon, thermoluminescent, dendrochronology, paleomagnetism.
Relative dating methods- fluorine-nitrogen analysis, stratigraphy, typology, patination

UNIT III Geochronology of Pleistocene Epoch:
Glacial and Interglacial
Pluviation and Inter Pluviation

UNIT IV Technology & Typology of pre-historic tools:
Technique of tool manufacture
Typology and cultural nomenclature

UNIT V Earliest Evidence of Culture in the World: Olduvai Gorge, Dmanisi & Attirampakkam,

CORE 3 (ANC 2.12) ARCHAEOLOGICAL ANTHROPOLOGY

Practical Credit: 2

Teaching Hours: 30

Typo-technological Analysis of Prehistoric Tools: Identification, Interpretation and Drawings of the tool Types (2 tools from each type)

1. Core Tool Types,
2. Flake Tool Types,
3. Microlithic Tool Type,
4. Neolithic Tool Type

Recommended Books and References:

1. Allchin and Allchin (1993). *The Rise of Civilization of India and Pakistan*. Cambridge University Press
2. Bhattacharya D.K. (1978). *Emergence of Culture in Europe*, Delhi, B.R. Publication.
3. Bhattacharya D.K. (1979). *Old Stone Age Tools and Techniques*. Calcutta, K.P. Bagchi Company
4. Bhattacharya D.K. (1996). *Palaeolithic Europe*. Netherlands, Humanities Press.
5. Champion et al. (1984). *Prehistoric Europe*. New York, Academic Press.
6. Fagan B.M. (1983). *People of Earth: An Introduction*. Boston, Little, Brown & Company.
7. Phillipson D. W. (2005). *African Archaeology*. Cambridge, Cambridge University Press.
8. Sankalia H.D. (1964). *Stone Age Tools*. Poona Deccan College

CORE 4 (ANC 2.21)
FUNDAMENTALS OF HUMAN ORIGIN & EVOLUTION

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Primate origins and radiation with special reference to Miocene hominoids: Ramapithecus, distribution, features and their phylogenetic relationships.
- UNIT II** 1. Australopithecines: distribution, features and their phylogenetic relationships.
2. Appearance of genus Homo (*Homo habilis*) and related finds.
- UNIT III** *Homo erectus* from Asia, Europe and Africa: Distribution, features and their phylogenetic status.
- UNIT IV** The origin of *Homo sapiens*: Fossil evidences of Neanderthals and Archaic *Homo sapiens sapiens*
- UNIT V** Origin of modern humans (*Homo sapiens sapiens*): Distribution and features, hominisation process.

CORE 4 (ANC 2.22)
FUNDAMENTALS OF HUMAN ORIGIN & EVOLUTION

Practical Credit: 2

Teaching Hours: 30

- 1. Osteology:** Drawing and studying of bones.

Recommended Books and References:

1. Buettner-Janusch, J. (1966). *Origins of Man: Physical Anthropology*. John Wiley & Sons, Inc., New York, London, Sydney.
2. Conroy, G.C. (1997). *Reconstructing Human Origins: A Modern Synthesis*. W. W. Norton & Company, New York, London.
3. Howell F.C. (1977). *Horizons of Anthropology*. Eds. S. Tax and L.G. Freeman, Aldine Publishing House, Chicago.
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*. Kamla-Raj Enterprises, Chawri Bazar, Delhi.
7. Stanford C.; Allen J.S. and Anton S.C. (2012). *Biological Anthropology: The Natural History of Mankind*. PHI Learning Private Limited, New Delhi.
8. Swindler D. R. (2009). *Introduction to the Primates*. Overseas Press India Pvt. Ltd., N. Delhi

SEMESTER - III

CORE 5 (ANC 3.11)

TRIBES AND PEASANTS IN INDIA

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Anthropological concept of Tribe:
- Problems of nomenclature, definition.
 - Features of tribes in India.
 - Classification of Indian tribes
- UNIT II** Tribes and Wider world:
- The history of tribal administration.
 - Tribal development schemes and programme.
- UNIT III** Anthropological concept of Village and peasantry.
- Significance of village study in India
 - Impact of globalization on Indian village.
- UNIT IV** Characteristics of Indian Village; social organization; economy and changes
- Caste system and changes.
- UNIT V** Ethnicity and Identity Issues: causes and types of Tribal and peasant movements.

CORE 5 (ANC 3.12)

TRIBES AND PEASANTS IN INDIA

Practical Credit: 2

Teaching Hours: 30

Reading of Ethnography: (a) How to review a book. Students are required to read and analyze any part of the ethnographies (as listed below)/any Naga Monograph and prepare a report based upon it.

List of Ethnographies:

- Walker A. (1986). *The Todas*. Delhi: Hindustan Publishing Corporation Verrier
- Elwin (1992). *The Muria and their Ghotul*. USA: Oxford University Press.
- Malinowski M. (1922). *Argonauts of the Western Pacific*. London: Routledge and Kegan Paul Ltd.
- Furer-Haimendorf C.V. (1939). *The Naked Nagas*. London: Methuen and Co.
- Evans-Pritchard E.E. (1940). *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*. Oxford: Clarendon Press.
- Majumdar D. N. (1950). *Affairs of tribes*. Lucknow: Universal Publishers Ltd.
- Dube S.C. (1955). *Indian Village*. London: Routledge and Kegan Paul Ltd.
- Berreman G.D. (1963). *Hindus of the Himalayas*. Berkeley: California University Press.
- Hutton, J.H. *The Angami Nagas*.
- Hutton, J.H. *The Lotha Nagas*.
- Hutton, J.H. *The Sema Nagas*.
- Mills, J.P. *The Ao Nagas*.
- Mills, J.P. *The Rengma Nagas*.

Recommended Books and References:

1. Gupta D. (1991). Social Stratification. Oxford University Press: Delhi.
2. Madan V. (2002). The Village in India. Oxford University Press: Delhi.
3. Nathan D. (1998). Tribe-Caste Question. Simla: IAS.
4. National Tribal Policy (draft). (2006). Ministry of Tribal Affairs. Government of India.
5. Patnaik S.M. (1996). Displacement, Rehabilitation and Social change. Inter India Publication, Delhi.
6. Shah G. (2002). Social Movement and the State. Delhi: Sage.
7. Shanin T. (1987). Peasants and Peasantry. New York, Blackwell.
8. Vidyarthi L.P. and Rai B.K. (1985) Tribal Culture in India, New Delhi, Concept Publishing Company.
9. Wolf E. (1966). Peasants. NJ, Prentice Hall.

CORE 6 (ANC 3.21)

HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS

Theory Credit: 4

Teaching Hours: 60

Biological Dimensions

UNIT I Concepts in Ecology: Definition, ecosensitivity adaptation, acclimation, acclimatization, biotic and abiotic component.

UNIT II Methods of studying human ecology, Adaptation to various ecological stresses; Ecological rules and their applicability to human populations.

UNIT III Impact of urbanization and industrialization on Man.

Cultural Dimensions

UNIT IV Culture as a tool of adaptation; Various modes of human adaptation in pre-statesocieties.

i. Hunting and food gathering

ii. Pastoralism

iii. Shifting cultivation

UNIT V Industrial civilization and growth of urban societies

CORE 6 (ANC 3.22)

HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS

Practical Credit: 2

Teaching Hours: 30

Biological Dimensions

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

Size and Shape Indices

1. Body Mass Index
2. Ponderal Index.
3. Relative Sitting Height
4. Relative Upper Extremity Length
5. Relative Total Lower Extremity Length
6. Nasal Index

Cultural Dimensions

1. Drawing, identification & description of technological implements from the department collection. (Implements for food gathering, hunting, fishing & agriculture)

Recommended Books and References:

1. Human ecology: biocultural adaptation in human communities. (2006) Schutkowski, H. Berlin. Springer Verlag.
2. Human ecology and cognitive style: comparative studies in cultural and physical adaptation. (1976) Berry, J.B. New York: John Wiley.
3. Human ecology. (1964) Stapledon. Faber & Faber.
4. Studies in Human Ecology. (1961) Theodorson, G.A. Row, Peterson & Company Elmsford, New York.
5. Human ecology: (1973) Problems and Solutions. Paul R. Ehrlich, Anne H. Ehrlich and John P. Holdress. W.H. Freeman & Company, San Francisco.
6. Cohen, Yehudi A. 1968. Man in adaptation; the cultural present. Chicago: Aldine Pub. Co.
7. Redfield, Robert. (1965). Peasant society and culture an anthropological approach to civilization. Chicago [u.a.]: Univ. of Chicago Press.
8. Symposium on Man the Hunter, Richard B. Lee, and Irven DeVore. 1969. Man the hunter. Chicago: Aldine Pub. Co.

CORE 7 (ANC 3.31)

BIOLOGICAL DIVERSITY IN HUMAN POPULATIONS

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Concept of race & racism, criteria for racial classification,
1. Major races of the world, UNESCO Statement on Race.
2. A comparative account of various racial classifications (Risley and Guha)
- UNIT II** Concept of Biological Variability; Sources of Genetic Variation; Genetic Polymorphism (Serological, Biochemical and DNA Markers); Human Adaptability –Adaptive Mechanisms determining the types of adaptation.
- UNIT III** Pre and Proto historic racial elements in India. Linguistic classification of Indian population.
- UNIT IV** Cultural Biology; Role of Bio-cultural factors influencing the diseases and nutritional status. Biological perspectives of ageing process among different populations.
- UNIT V** Demographic Perspective
Demographic Anthropology; Sources of Demographic Data, Demographic Processes
Inbreeding and Consanguinity – Biological consequences of inbreeding, frequency of inbreeding in world populations; Methods of counseling.

CORE 7 (ANC 3.32)
BIOLOGICAL DIVERSITY IN HUMAN POPULATIONS

Practical Credit: 2

Teaching Hours: 30

1. Craniometric Measurements (Skull)
2. Analysis and interpretation of finger ball pattern types, palmar main lines and pattern index; Finger print classification of the data collected (Five Subjects)

Recommended Books and References:

1. Baker P.T. and J.S. Weiner (ed.) (1996) *The Biology of Human Adaptability*. Oxford & New York, Oxford University Press.
2. Bhende A. and T. Kantikar (2006) *Principles of Population Studies*. Himalayan Publishing House, Mumbai
3. Bogin B. (1999). *Pattern of Human Growth*. 2nd edition CUP.
4. Cameron Noel and Barry Bogin (2012) *Human Growth and development*. Second edition, Academic Press Elsevier.
5. Eckhardt R.B. (1979) *The Study of Human Evolution*. McGrand Hill Book Company, USA.
6. Frisancho R. (1993) *Human Adaptation and Accommodation*. University of Michigan press
7. Harrison G.A., Tanner, J.M., Pilbeam, D.R., Baker, P.T. (1988) *Human Biology*. Oxford University Press.
8. Jurmain Robert Lynn Kilgore Wenda Trevathan and Ciochon (2010). *Introduction to Physical Anthropology*. Wadsworth Publishing, USA.
9. Kapoor A.K. and Satwanti Kapoor (ed) (1995). *Biology of Highlanders*. Jammu, Vinod Publisher & Distributor.
10. Kapoor A.K. and Satwanti Kapoor (eds) (2004) *India's Elderly-A Multidisciplinary Dimension*. Mittal Publication, New Delhi.
11. Klepinger L.L. (2006). *Fundamentals of Forensic Anthropology*. John Willey & Sons., New Jersey.
12. Malhotra K.C. and B. Balakrishnan (1996) *Human Population Genetics in India*
13. Malina Robert M., Claude. Bouchard, Oded. Bar-Or. (2004) Growth, and Physical Activity. *Human Kinetics*.
14. Stanford C., Allen, S.J. and Anton, C.S. (2013): *Biological Anthropology*. 3rd edition, Pearson, USA.

SEMESTER - IV

CORE 8 (ANC 4.11) THEORIES OF CULTURE AND SOCIETY

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Evolutionary theory, changing perspective of Evolutionism (Taylor, Morgan, Steward & white)
- UNIT II** Diffusionism: Basic postulates of diffusionism: British, American & German school of diffusionism (Rivers, G.E. Smith, Franz Boas, A.L. Kroeber, Friedrich Ratzel, Leo Frobenius)
- UNIT III** Durkheim and social integration, Functionalism, and Structural- Functionalism.
- UNIT IV** Culture & personality, (Benedict, Mead, Kardiner, R. Linton, Cora DuBois)
- UNIT V** Symbolic and Interpretative approach. (Clifford Geertz, Victor Turner, and Mary Douglas.)

CORE 8 (ANC 4.12) THEORIES OF CULTURE AND SOCIETY

Practical Credit: 2

Teaching Hours: 30

As a part of the practical the students will be made to write a term paper on any one of the theories they have learned.

Recommended Books and References:

1. Applebaum H.A. (1987) *Perspectives in Cultural Anthropology*. Albany: State University of New York.
2. Barnard A. (2000). *History and Theory in Anthropology*. Cambridge: Cambridge University.
3. McGee R.J. and Warms R.L. (1996) *Anthropological Theories: An Introductory History*.
4. Moore M. and Sanders T. (2006). *Anthropology in Theory: Issues in Epistemology*, Malden, MA: Blackwell Publishing.

CORE 9 (ANC 4.21) HUMAN GROWTH AND DEVELOPMENT

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Concept of human growth, development, differentiation and maturation. Evolutionary perspective on human growth
- UNIT II** Prenatal (conception till birth) and postnatal (birth till senescence) period of growth, pattern of normal growth curves, variation from normal growth (catch-up growth and catch-down growth), gender differences in growth curves, secular trend

- UNIT III** Bio-cultural factors (genetic, social, and ecological factors) influencing patterns of growth and variation, methods and techniques to study growth, significance/applicability of growth studies,
- UNIT IV** Nutritional epidemiology-concept of balanced diet, impact of malnutrition (over and under) with special reference to obesity, Kwashiorkor and Marasmus. Assessment of nutritional status.
- UNIT V** Human physique and body composition – models and techniques; gender and differences, Somatotyping and human physique with reference to Sheldon, Parnell, and Carter methods

CORE 9 (ANC 4.22)
HUMAN GROWTH AND DEVELOPMENT

Practical Credit: 2

Teaching Hours: 30

1. Somatometry (stature, body weight, mid upper arm circumference etc.), assessment of chronological age, height for age, weight for age, BMI for age.
2. Estimation of body composition with skinfold thickness.

Recommended Books and References:

1. Bogin B. (1999) Patterns of human growth. Cambridge University Press.
2. Frisancho R. (1993) Human Adaptation and Accommodation. University of Michigan Press.
3. Cameron N and Bogin B. (2012) Human Growth and Development. Second edition, Academic press Elsevier.
4. Harrison GA and Howard M. (1998). Human Adaptation. Oxford University Press.
5. Harrison GA, Tanner JM, Pibeam DR, Baker PT. (1988). Human Biology. Oxford University Press.
6. Jurmain R, Kilgore L, Trevathan W. Essentials of physical anthropology. Wadsworth publishing.
7. Kapoor AK and Kapoor S. (1995) Biology of Highlanders. Vinod Publisher and Distributor.
8. Kathleen K. (2008). Encyclopedia of Obesity. Sage.
9. Malina RM, Bouchard C, Oded B. (2004) Growth, Maturation, and Physical Activity. Human Kinetics.
10. McArdle WD, Katch FI, Katch VL. (2001) Exercise Physiology: Energy, Nutrition and Human Performance.
11. Singh I, Kapoor AK, Kapoor S. (1989). Morpho-Physiological and demographic status of the Western Himalayan population. In Basu and Gupta (eds.). Human Biology of Asian Highland Populations in the global context.
12. Sinha R and Kapoor S. (2009). Obesity: A multidimensional approach to contemporary global issue. Dhanraj Publishers. Delhi.

**CORE 10 (ANC 4.31)
RESEARCH METHODS**

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Research Design
Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis.
- UNIT II** Field work tradition in Anthropology
Ethnographic approach, ethnocentrism, etic and emic perspectives, comparative and historical methods, techniques of rapport establishment, identification of informants, maintenance of field diary and logbook
- UNIT III** Tools and technique of data collection:
Sampling, Concept of survey, relationship of survey method with ethnographic method, questionnaire and interview method, Focussed Group Discussion, key informant, Case Study and life history, Genealogy.
- UNIT IV** Analysis and Writing Up
1. Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, index.
2. Similarities and differences between qualitative and quantitative data analysis.
- UNIT V** Bio-Statistics
1. Uses of statistics in Anthropology: mean, median Mode, standard deviation, test of significance.
2. Types of variables, presentation and summarization of data (tabulation and illustration).

**CORE 10 (ANC 4.32)
RESEARCH METHODS**

Practical Credit: 2

Teaching Hours: 30

1. Preparation of questionnaire and schedule.
2. Graphical and diagrammatic presentation of data.

Recommended Books and References:

1. Garrard E and Dawson A. What is the role of the research ethics committee? Paternalism, inducements, and harm in research ethics. *Journal of Medical Ethics* 2005; 31: 419-23.
2. Bernard H.R. *Research Methods in Anthropology, Qualitative and Quantitative Approaches*. Jaipur: Rawat Publications. 2006.
3. Madrigal L. *Statistics for Anthropology*. Cambridge: Cambridge University Press. 2012.
4. Zar JH. *Biostatistical Analysis*. Prentice Hall. 2010.
5. Michael A. *The Professional Stranger*. Emerald Publishing. 1996.
6. Bernard R. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. AltaMira Press. 2011.

7. Emerson RM, Fretz RI and Shaw L. Writing Ethnographic Fieldnotes. Chicago, University of Chicago Press. 1995.
8. Lawrence NW. Social Research Methods, Qualitative and Quantitative Approaches. Boston: Allyn and Bacon. 2000.
9. O'reilly K. Ethnographic Methods. London and New York: Routledge. 2005.
10. Patnaik S.M. Culture, Identity and Development: An Account of Team Ethnography among the Bhil of Jhabua. Jaipur: Rawat Publications. 2011.
11. Pelto PJ and Pelto GH. Anthropological Research, The Structure of Inquiry. Cambridge: Cambridge University Press. 1978.
12. Sarantakos S. Social Research. London: Macmillan Press. 1998.

SEMESTER - V

CORE 11 (ANC 5.11)

HUMAN POPULATION GENETICS

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Essentials of Genetics: principles in human genetics, chromosome theory of inheritance (segregation and independent assortment) Mendelian inheritance (single factor and multifactorial inheritance, polygenic inheritance), Non- Mendelian inheritance (multiple allelism, Co-dominance; sex linked, epistasis; penetrance and expressivity;
- UNIT II** Ecological Genetics and Polymorphism, phenotypic & genotypic polymorphisms, transient polymorphism, balanced polymorphisms, Relationship between sickle cell and malaria, X-linked polymorphism, selection due to infectious diseases and its association with blood groups and other.
- UNIT III** Hardy-Weinberg principle: Genotypic and allelic frequencies, assumptions of Hardy-Weinberg equilibrium, its applications and exceptions.
- UNIT IV** Mechanism for dynamics in Gene Frequency, mutation, selection (pattern and mechanism), Genetic drift (bottle neck and founder effect), Gene flow/migration, inbreeding.
- UNIT V** Population structure and admixture in human populations, random & non-random mating (positive and negative assortative mating), eugenics and genetic counseling.

CORE 11 (ANC 5.12)

HUMAN POPULATION GENETICS

Practical Credit: 2

Teaching Hours: 30

1. Blood group typing-ABO and Rh (D) blood groups.
2. Color Blindness
3. Blood pressure and sugar level variation (random)

Recommended Books and References:

1. Brooker R.J. (2012). Genetics: analysis & principles. The McGraw-Hill Companies, Inc 4th ed.
2. Cavalli-Sforza, L.L. and Bodmer, W.F (1971). The Genetics of Human Population. San Francisco: Freeman
3. Cooper DN and Kehrer-Sawatzki H. (2008). Handbook of Human Molecular Evolution. John Wiley & Sons, volume-2.
4. Crawford MH (2007). *Anthropological Genetics Theory, Methods and Applications*. Cambridge University Press
5. Cummings M.R. (2011). Human Heredity: Principles and Issues. Ninth Edition. Brooks/Cole, Cengage Learning
6. Jobling, M.A. Hurlst M. and Tyler-Smith C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. GS. NY

7. Lewis R. (2009). *Human Genetics: Concepts and Applications* 9th Edition. The McGraw-Hill Companies, Inc.
8. Patch C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group
9. Relethford J.H. (2012). *Human Population Genetics*. Wiley-Blackwell, USA
10. Snustad .D.P. and Simmons M.J. (2006). *Principles of Genetics*, Fourth Edition, John Wiley & Sons USA, Hoboken NJ
11. Strachan T, Read A.P. (2004). *Human Molecular Genetics*. Garland Science/Taylor &Francis Group.
12. Vogel F. and Motulsky A.G. (1996). *Human Genetics*. Springer, 3rd revised edition.

**CORE 12 (ANC 5.21)
ANTHROPOLOGY IN PRACTICE**

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Concept of Applied Anthropology, Action Anthropology and Development.
- UNIT II** Role of Anthropology in Need of Assesment and Community Development, Environment and Community Health, Social and economic sustainability, Cultural resource Management.
- UNIT III** Trends in Anthropology: Anthropology of Tourism, Anthropology in Census.
- UNIT IV** Human Rights, Interrelationships of Rights and Duties, protection and enforcement of human rights and duties, National and State Human Rights Commission and other grievance redressal mechanism, Emerging trends of human rights respective to terrorism, environment.
- UNIT V** **A.** Biosocial anthropology in practice; Bio-social elements of human development at national and international level, application of conceptual framework of Forensic Anthropology in judicial settings of both criminal and civil,
B. Population Dynamics and relationship between population growth and various aspects of culture such as means of subsistence, kinship, social complexity, social stratification.

**CORE 12 (ANC 5.22)
ANTHROPOLOGY IN PRACTICE**

Practical Credit: 2

Teaching Hours: 30

1. Seminar presentation.

Recommended Books and References:

1. Arya A and Kapoor AK. (2012). *Gender and Health Management in Afro-Indians*. Global Vision Publishing House, New Delhi.
2. Kertzer DI and Fricke T. (1997). *Anthropological Demography*. University of Chicago Press.
3. Basu, A. and P. Aaby (1998). *The Methods and the Uses of Anthropological Demography*. 329 pp. Oxford, Clarendon Press

4. Carter A. (1998). Cultural Models and Demographic Behavior. In *The Methods and the Uses of Anthropological Demography* edited by Basu A and Aaby P. Oxford: Clarendon Press. pp 246-268.
5. Census of India (2001, 2011) and National Family Health Survey (2006,2010).
6. Ervic, Alexander M., (2000). *Applied Anthropology: Tools and Perspectives for Contemporary Practise*, Boston, MA: Allyn and Bacon.
7. Erwin A. (2004). *Applied Anthropology Tools and Practice*, Allyn and Bacon.
8. Gupta S and Kapoor AK. (2009). *Human Rights among Indian Populations: Knowledge, Awareness and Practice*. Gyan Publishing House, New Delhi.
9. Willen SS. (2012). *Anthropology and Human Rights: Theoretical Reconsiderations and Phenomenological Explorations*. *Journal of Human Rights*. 11:150-159.
10. Goodale M. (2009). *Human Rights: An Anthropological Reader*. Wiley Blackwell.
11. Gupta S and Kapoor AK. (2007). *Human Rights, Development and Tribe*. In: *Genes, Environment and Health – Anthropological Perspectives*. K. Sharma, R.K. Pathak, S.Mehra and Talwar I (eds.). Serials Publications, New Delhi.
12. Margaret AG. (2003). *Applied Anthropology: A Career-Oriented Approach*, Boston, MA: Allyn and Bacon.
13. Halbar BG and Khan CGH. (1991). *Relevance of Anthropology – The Indian Scenario*. Rawat Publications, Jaipur.
14. Kapoor AK (1998). *Role of NGO's in Human Development: A Domain of Anthropology*. *J Ind Anthropol Soc*; 33:283-300.
15. Kapoor AK and Singh D. (1997). *Rural Development through NGO's*. Rawat Publications, Jaipur.
16. Klepinger LL (2006). *Fundamentals of Forensic Anthropology*. Wiley-Liss Publications
17. Kumar RK and Kapoor AK. (2009). *Management of a Primitive Tribe: Role of Development Dynamics*. Academic Excellence, Delhi.
18. Mehrotra N and Patnaik SM. (2008). *Culture versus Coercion: The Other Side of Nirmal Gram Yojna, Economic and Political weekly*. pp 25-27.
19. Mishra RC (2005). *Human Rights in a Developing Society*, Mittal Publications, Delhi.
20. Noaln RW. (2002). *Anthropology in Practice: Building a Career outside the Academy*. Publishing Lynne Reinner.
21. Patnaik SM (1996). *Displacement, Rehabilitation & Social Change*. Inter India Publications, New Delhi.
22. Patnaik SM (2007). *Anthropology of Tourism: Insights from Nagaland*. *The Eastern Anthropologist*. 60(3&4):455-470
23. Srivastav OS (1996). *Demographic and Population Studies*. Vikas Publishing House, India
24. Vidyarthi LP and BN Sahay (2001). *Applied Anthropology and Development in India*, National Publishing House, New Delhi.
25. Vidyarthi LP. (1990). *Applied Anthropology in India – Principles, Problems and Case Studies*. Kitab Mahal, U.P.
26. Vidyarthi V (1981). *Tribal Development and its Administration*. Concept Publishing Company, New Delhi.

SEMESTER - VI

CORE 13 (ANC 6.11) FORENSIC ANTHROPOLOGY

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Introduction to Forensic Anthropology: Definition, Brief History, Scope, Applications and Integration of Forensic Anthropology.
- UNIT II** Identification of Human and Non-Human Skeletal Remains, Ancestry, age, sex and stature estimation from bones.
- UNIT III** Personal Identification, Complete and Partial Identification, Methods of Identification in Living Persons: Somatometry, Somatoscopy, dermatoglyphics of palm prints and Fingerprints, Deformities and Others.
- UNIT IV** Serology: Identification and Individualization of bloodstain, urine, semen and saliva. Patterns of Bloodstains.
- UNIT V** Individualization: Forensic Odontology-Tooth Structure and Growth, Bite Marks, Facial Reconstruction, DNA Profiling.

CORE 13 (ANC 6.12) FORENSIC ANTHROPOLOGY

Practical Credit: 2

Teaching Hours: 30

1. Study of Human Long Bones. Estimation of age, sex and stature from bones.
2. Analysis of Fingerprints & palm prints

Recommended Books and References:

1. Bass W.M. (1971). Human Osteology: A Laboratory and Field manual of the Human Skeleton. Columbia: Special Publications Missouri Archaeological Society.
2. Black S. and Ferguson E. (2011). *Forensic Anthropology 2000 to 2010*. CRC Press, London.
3. Byers, S. N. (2008). Forensic Anthropology. Boston: Pearson Education LTD.
4. Gunn A. (2009) *Essential Forensic Biology* (2nd ed). Chichester: Wiley-Blackwell
5. Modi, R. B. J. P. (2013). *A Textbook of Medical Jurisprudence and Toxicology*. Elsevier.
6. Reddy V. R. (1985). Dental Anthropology, Inter-India Publication, New Delhi.
7. Spencer, C. (2004). Genetic Testimony: A Guide to Forensic DNA Profiling, Pearson, New Delhi.
8. Vats Y., Dhall J.K. and Kapoor A.K. (2011). Gender Variation in Morphological Patterns of Lip Prints among some North Indian Population. *J. Forensic Odontology*, 4: 11-15.
9. Wilkinson, C. (2004). *Forensic facial reconstruction*. Cambridge University Press.

CORE 14 (ANC 6.21)
ANTHROPOLOGY OF INDIA

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Emergence and growth of Anthropology in India, approaches to study Indian society and culture.
- UNIT II** Understanding the diversity of Indian social structure- concept of varna, jati/caste. Theories of origin of caste system, Ashram or purusharatha.
- UNIT III** Impact of culture-contact, urbanization and industrialization on tribal and rural population.
- UNIT IV** Basic concepts- Great tradition and little tradition, sacred complex, Universalization and parochialization, Sanskritization and Westernization, Dominant caste, Nature-Man-Spirit complex,
- UNIT V** Problems of exploitation and deprivation of scheduled caste/tribe and Other Backward Classes.

CORE 14 (ANC 6.22)
ANTHROPOLOGY OF INDIA

Practical Credit: 2

Teaching Hours: 30

1. Write a report highlighting the contributions of any one contemporary Indian anthropologists.

Recommended Books and References:

1. Nicholas D. (2001). Castes of Mind: Colonialism and the Making of Modern India. Princeton University Press.
2. Bernard CS. (2000). India: The Social Anthropology of Civilization. Delhi: Oxford University Press.
3. Bhasin MK, Watter H and Danker-Hopfe H. (1994). People of India – An Investigation of Biological variability in Ecological, Ethno-economic and Linguistic Groups. Kamla Raj Enterprises, Delhi
4. Lopez DS. (1995). Religions of India in Practice. Princeton University Press
5. Gupta D. Social Stratification. Delhi: Oxford University Press.
6. Karve I. (1961). Hindu Society: An Interpretation. Poona : Deccan College
7. Guha BS. (1931). The racial attributes of people of India. In: Census of India, 1931, vol I, Part III (BPO, Simla)
8. Trautmann TR (2011). India: Brief history of Civilization. Oxford University Press: Delhi
9. Vidyarthi LP and Rai BK. (1976). The tribal culture of India. Concept Publishing Co, Delhi.
10. Haddon AC. (1929). Races of man. Cambridge University, London.
11. Kapoor A.K. (1992). Genetic Diversity among Himalayan Human Populations. M/S Vinod Publishers, Jammu
12. Majumdar DN. (1901). Races and Culture of India. Asia Publishing House, Bombay
13. Dube SC. (1992). Indian Society. National Book Trust, India: New Delhi.
14. Dumont L. (1980). Homo Hierachicus. University of Chicagon Press.
15. Guha B.S. (1931). The racial attributes of people of India. In: Census of India, 1931, vol I, Part III (BPO, Simla)
16. Malhotra K.C. (1978). Morphological Composition of people of India. J. Human Evolution.

DISCIPLINE SPECIFIC ELECTIVE (DSE)

DISCIPLINE SPECIFIC ELECTIVE 1 (AND 5.11(a)) SPORTS AND NUTRITIONAL ANTHROPOLOGY

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Anthropology of sports- Physical fitness, component of physical fitness.
- UNIT II** Physical conditioning, training-techniques and physiological effects, Environmental effects on physical performance: effect of heat stress, cold stress and high altitude on physiological response and performance.
- UNIT III** Body composition and Athletes, sports selection and monitoring.
- UNIT IV** Human biological variability, health and nutrition; doping and performance.
- UNIT V** Cultural constructions and physiologic implications of food across time, space and society; an integrated bio-behavioral perspective towards food preference.

DISCIPLINE SPECIFIC ELECTIVE 1 (AND 5.12(a)) SPORTS AND NUTRITIONAL ANTHROPOLOGY

Practical Credit: 2

Teaching Hours: 30

Practical

1. Survey Assessment of daily nutrient intake/ Evaluate association of nutritional status and physical performance/ Demonstrate cultural perspective for preference of specific food of a population

Recommended Books and References:

1. Stinson S. (1992). Nutritional Adaptation. Annual Review of Anthropology 21:143-170.
2. Brughart R. (1990). The Cultural Context of Diet, Disease and the Body. In Diet and Disease in Traditional and Developing Societies. GA Harrison and JC Waterlow, eds. P. 307-325. Cambridge University Press. Cambridge.
3. Rozin P. (1987). Psychobiological Perspectives on Food Preferences. In Food and Evolution: Toward a Theory of Food Habits. M. Harris and EB Ross (eds.). Temple University Press. Philadelphia, pp. 181-205.
4. Quandt SA. (1987). Methods for Determining Dietary Intake. In Nutritional Anthropology. FE Johnston, ed. Pp. 67-84. Liss. NY.
5. Ulijasek SJ and Strickland SS. (1993). Introduction. In Nutritional Anthropology: Prospects and Perspectives. Pp. 1-5. Smith Gordon. London.

**DISCIPLINE SPECIFIC ELECTIVE 1 (AND 5.11(b))
FORENSIC DERMATOGLYPHICS**

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Introduction to Dermatoglyphics: History and Development, scope and Applications.
- UNIT II** Formation of fingerprint ridges, pattern types and patterns area. Classification of Fingerprints- Galton & Henry Classification.
- UNIT III** Types of Fingerprints: Plastic, Visible and Latent Prints. Conventional and Modern methods for development of latent fingerprints-, Powder Methods, Metal Deposition Method, Small Particle Reagent and Laser Techniques.
- UNIT IV** Basis of Fingerprint Comparison: Class Characteristics and Individual Characteristics, Determination of Identity. Other Dermatoglyphic Patterns: Palm Print, Sole Prints and Toe Prints.
- UNIT V** Recent advances: Fingerprint and Palm-print Recognition, Automated Fingerprint Identification System.

**DISCIPLINE SPECIFIC ELECTIVE 1 (AND 5.12(b))
FORENSIC DERMATOGLYPHICS**

Practical Credit: 2

Teaching Hours: 30

Practical

1. Recording and Study of Finger and Palm Prints
2. Determination of palmar main line formula, Ridge count and indices
3. Comparison of Fingerprints and Palmprints on the basis of class and individual ridge Characteristics

Recommended Books and References:

1. Cowger, J. F. (1992). *Friction ridge skin: comparison and identification of fingerprints* (Vol. 8) CRC Press.
2. Cummins, H., & Midlo, C. (1961). *Finger prints, palms and soles: An introduction to dermatoglyphics*(Vol. 319). New York: Dover Publications.
3. Jain, A. K., Flynn, P., & Ross, A. A. (2007). *Handbook of biometrics*. Springer Science & Business Media.
4. Lee, H. C., Ramotowski, R., & Gaensslen, R. E. (Eds.). (2001). *Advances in fingerprint technology*. CRC press.
5. Berry, J., & Stoney, D. A. (2001). The history and development of fingerprinting. *Advances in fingerprint Technology*, 2, 13-52.
6. Mehta, M. K. (1980). Identification of thumb impression and cross examination of fingerprints. N. M. Tripathi Publication, Bombay.

**DISCIPLINE SPECIFIC ELECTIVE 2 (AND 5.21(a))
ANTHROPOLOGY OF HEALTH**

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Introduction and overview of the Field of Anthropology and Health: Defining Health and Illness in Cross- Cultural Perspectives. Looking at 'health', 'illness' and related concepts in western culture, some important variations in the process of seeking health care.
- UNIT II** Measuring Health: Concept of Morbidity & Mortality, Epidemiology: Meaning, scope and methods. Epidemiology of common communicable diseases: Malaria, Tuberculosis, Leprosy, Diabetes, Cardiovascular disease and Sexually Transmitted Diseases(STDs), HIV/AIDS.
- UNIT III** Healing and Healers in Cross-Cultural Perspectives: Shamanism, Magic and Healing. Shaman, magic, witchcraft and sorcery.
- UNIT IV** Healing and Healers in Cross-Cultural Perspectives: Folk Healers and "Alternative medicine". Types of healers and healing, problems in evaluating efficacy, sources of dissatisfaction with mainstream medicine.
- UNIT V** Rules and regulations of international health policy, Medico-Legal Problems in relation to health administration, International health organization/ NGOs, Medical Ethics, Critical issues in global health.

**DISCIPLINE SPECIFIC ELECTIVE 2 (AND 5.22(a))
ANTHROPOLOGY OF HEALTH**

Practical Credit: 2

Teaching Hours: 30

1. Case Studies of Traditional and Modern healers.

Recommended Books and References:

1. Rajesh Khanna and A.K. Kapoor. 2007. Ethnic Groups and Health Dimensions. Discovery Publishing House, New Delhi.
2. Chin, James, M.D., M.P.H. (ed.) 2000. Control of Communicable Diseases Manual. 17th Edition. American Public Health Association. *Anyone interested in field work in less developed areas should own this book for reference.*
3. Helman, Cecil G. 2001. Culture, Health, and Illness. 4th ed. London: Arnold. *This book is written for health care practitioners and clearly explains the relevance of culture to health.*
4. Mann, Jonathon M., et al. (eds.) 1999. Health and Human Rights. New York: Routledge.
5. Albrecht, Gary L., Ray Fitzparick, and Susan C. Scrimshaw (eds.) 2000. The Handbook of Social Studies in Health and Medicine, SAGE. Publications.
6. Bannerman, Robert, J. Burton, and Ch'en Wen-Chieh (eds.) 1983. Traditional Medicine and Health Care Coverage. Geneva: World Health Organization.
7. Chen, Lincoln C. Arthur Kleinman, and Norma C. Ware 1994. Health and Social Change in International Perspective. Harvard University Press.
8. Coreil, Jeannine and J. Dennis Mull (eds.) 1990. Anthropology and Primary Health Care, Boulder: Westview Press.

9. Hahn, Robert A. 1999. Anthropology in Public Health. Bridging Differences in Culture and Society. New York: Oxford University Press.
10. Helman, Cecil G. 1994. Culture, Health, and Illness. 3rd ed. Oxford: Butterworth-Heinemann.
11. Inhorn, Marcia C. and Peter J. Brown 1997. The Anthropology of Infectious Disease. International health Perspectives. Gordon and Breach Publishers.
12. Koop, C. Everett, Clarence E. Pearson, and M. Roy Schwartz (eds.) 2001. Critical Issues in Global Health. San Francisco: Jossey-Bass. A Wiley Company.
13. Mayer, Kenneth H. and H.F. Pizer (eds.) 2000. The Emergence of AIDS. The Impact on Immunology, Microbiology, and Public Health. Washington, D.C.: American Public Health Association.
14. Nichter, Mark and Mimi Nichter 1996. Anthropology and International Health. Asian Case Studies. Gordon and Breach Publishers.
15. Paul, Benjamin D. (ed.) 1955. Health, Culture, and Community. Case Studies of Public Reactions to Health Programs.
16. Williams, Cicely D., Naomi Baumslag, and Derrick B. Jelliffe 1994. Mother and Child Health. Delivering the Services. 3rd Edition. New York: Oxford University Press
Basch, Paul F. Textbook of International Health 1999. New York: Oxford University Press.
17. Tsui, Amy O., Judith N. Wasserheit, and John G. Haaga (eds.) 1997. Reproductive Health in Developing Countries. Washington, D.C.: National Academy Press.

**DISCIPLINE SPECIFIC ELECTIVE 2 (AND5.21(b))
TRIBAL CULTURES OF INDIA**

Theory Credit: 4

Teaching Hours: 60

- UNIT I** Tribes in India: historical, academic, administrative and anthropological importance.
- UNIT II** Tribe- caste continuum, Constitutional safeguard/provisions, Gender and Tribe,
- UNIT III** Scheduled and non-scheduled categories of tribes, Denotified tribes.
- UNIT IV** Problems of tribal communities: land alienation, poverty, unemployment and underemployment, low literacy, health and nutrition, lack of educational facilities, shifting cultivation etc.
- UNIT V** Forest policies and tribes, Migration and occupational shift, Tribal arts and aesthetics
Displacement, rehabilitation and social change Globalization among Indian tribes.

**DISCIPLINE SPECIFIC ELECTIVE 2 (AND 5.22(b))
TRIBAL CULTURES OF INDIA**

Practical Credit: 2

Teaching Hours: 30

Practical

Distribution of Indian Tribes: PTG, ST/Location of different tribes on the map of India/Write an annotated bibliography on any one tribe.

Recommended Books and References:

1. Behera, D.K and Georg pfeffer. Contemporary Society Tribal Studies, Volume I to VII.New Delhi: Concept Publishing Company
2. Georg Pfeffer. Hunters, Tribes and Peasant: Cultural Crisis and Comparison. Bhubaneswar: Niswas.
3. Vidarthi, L.P. and Rai. Applied Anthropology in India.
4. Vidarrthy, L.P. and B.N. Sahay. Applied Anthropology and Development in India. NewDelhi: National Publishing House

**DISCIPLINE SPECIFIC ELECTIVE 3 (AND 6.11(a))
INDIAN ARCHAEOLOGY**

Theory Credit: 4

Teaching Hours: 60

UNIT I History of Indian Archeology pre & post independence.

UNIT II Methods of climatic reconstruction: palynology, paleontology, soil pH estimation.

UNIT III Character, distribution and interpretation of habitat and economy of:
i Lower palaeolithic
ii Middle palaeolithic
iii Upper palaeolithic
iv Mesolithic culture

UNIT IV Neolithic revolution – emergence of human settlement and farming in India.

UNIT V Megalithic cultures in India salient feature and types

**DISCIPLINE SPECIFIC ELECTIVE 3 (AND 6.12(a))
INDIAN ARCHAEOLOGY**

Practical Credit: 2

Teaching Hours: 30

1. Sketching, description, identification and functions of prehistoric tools (5 tools from each period)
 - i Palaeolithic (lower, middle, upper)
 - ii Mesolithic
 - iii Neolithic
2. Identification of lithic technology.

Recommended Books and References:

1. Agrawal, D.P. 1982. *The Archaeology of India*. New Delhi: Select Books Syndicate.
2. Allchin, B and R. Allchin. 1983. *The Rise of Civilization in India and Pakistan*. New Delhi: SBS.
3. Bhattacharya, D. K. (1996) *An Outline of Indian Prehistory*. Delhi, Palika Prakashan.
4. Jamir, T. and M. Hazarika (eds.). 2014. *50 Years After Gaojali-Hading: Emerging Perspectives in the Archaeology of Northeast India*. Research India Press.

5. Sankalia, H. D. (1974) Prehistory and Protohistory of India and Pakistan. Poona, Deccan College.
6. Sankalia, H. D. (1982) Stone Tool Type and Technology. Delhi, B.R. Publication.

**DISCIPLINE SPECIFIC ELECTIVE 3 (AND 6.11(b))
PALEO-ANTHROPOLOGY**

Theory Credit: 4

Teaching Hours: 60

UNIT I Geological time scale, taphonomy and interpretation of the paleontological and archaeological records, taxonomic and chronological problems of fossils records.

UNIT II Primate Speciation and extinctions: a geological perspective, adaptive primate Radiation.

UNIT III Evolutionary biology: Origins and evolution of stone age technology (Human origins: Development, distribution and fossilized evidence of Australopithecines, Paranthropus (Zinjanthropus), Homo habilis, Homo erectus, Archaic H. sapiens.

UNIT IV Primate and Non-Primate Models for Early Hominid Behaviour; hominization process- Evolution of hominid-human bipedalism

UNIT V Palaeopathology- bioarchaeological approach of disease; effects of agriculture, urbanization; dispersion of modern humans - molecular and morphological patterns of relationship

**DISCIPLINE SPECIFIC ELECTIVE 3 (AND 6.12(b))
PALEO-ANTHROPOLOGY**

Practical Credit: 2

Teaching Hours: 30

Practical

1. Seminar

Recommended Books and References:

1. Napier JR and Napier PH. (1985). The Natural History of the Primates. Cambridge, MA: The MIT Press
2. Boyd R and Silk JB. (2009). How Humans Evolved. London: WW Norton.
3. Tattersall I. (2009). The Fossil Trail: How We Know What We Think We Know about Human Evolution. New York: Oxford University Press.
4. Waldron T. (2008): Palaeopathology. Cambridge University Press.
5. Cela-conde CJ and Frisancho J. (2007). Human Evolution: Trails from the past. Ayala Oxford University Press.
6. Barnes E. Diseases and Human Evolution. (2005). University of New Mexico Press.
7. Pinhasi R and Mays S (2008). Advances in Human Palaeopathology. Chichester: John Wiley & Sons, Inc. (PM).
8. Hoppa RD and Vaupel JW. (2002). Paleodemography: Age Distributions from Skeletal Samples. Cambridge University Press.

9. Lansen CS, Matter RM and Gebo DL. (1998). Human Origin: The fossil Record. Waveland Press.
10. Cameron DW and Colin P. Groves CP. (2004). Bone, Stones and Molecules: "Out of Africa" and Human Origins. Elsevier Inc.
11. Stringer C. (2011). The Origin of Our Species. London: Allen Lane.
12. Conroy GC. (2005). Reconstructing Human Origins. WW Norton and Company.

**DISCIPLINE SPECIFIC ELECTIVE 4 (AND 6.21)
DISSERTATION**

Theory Credit: 4

Teaching Hours: 60

DISSERTATION: Student will opt either dissertation or project work or one paper from the elective discipline course in 6th Semester. He will be attached with one supervisor or guide.

SKILL ENHANCEMENT COURSE (SEC)

SKILL ENHANCEMENT COURSE 1 (ANS 3.11) TOURISM ANTHROPOLOGY

Theory Credit: 2

Teaching Hours: 30

UNIT I Concept and historical background of tourism anthropology, aspects and prospects of tourism anthropology, tourism and the co modification of culture or cultural degradation.

UNIT II (a). Relationship between heritage making enterprises, revival n preservation projects, role of museum and other branches of the cultural industries (including music art and food) in tourism economies.
(b). New direction of anthropology in tourism, tourism and terrorism, tourism and global mobility, ecotourism and sustainable development.

Recommended Books and References:

1. Chambers E. (2000). *Native Tours: The Anthropology of Travel and Tourism*. Prospect Heights: Waveland.
2. Crick M. (1995). *The Anthropologist as Tourist: An Identity in Question*. In Lanfant MF, Allcock JB, Bruner EM (eds.) *International Tourism: Identity and Change*. London:Sage. pp. 205-223.
3. Dann GMS, Nash D and Pearce PL. (1988). *Methodology in Tourism Research*. *Annals of Tourism Research*. 15:1-28.
4. Gmelch SB. (2004). *Tourists and Tourism: A Reader*. Long Grove: Waveland.
5. Graburn NHH. (1977). *Tourism: The Sacred Journey*. *Hosts and Guests: The Anthropology of Tourism*. Valene L. Smith, ed. Philadelphia: University of Pennsylvania Press. Pp. 33-47.
6. Dann G. (2002). *The Tourist as a Metaphor of the Social World*. Wallingford: CAB International.
7. Nash D. (1996). *Anthropology of Tourism*. New York: Pergamon.
8. Kirshenblatt-Gimblett B. (1998). *Destination Culture: Tourism, Museums, and Heritage*. University of California Press.
9. Lippard LR. (1999). *On the Beaten Track: Tourism, Art and Place*. New Press.
10. Picard M and Wood R. (1997). *Tourism, Ethnicity, and the State in Asian and Pacific Societies*. University of Hawaii Press.
11. Crick M. (1994). *Anthropology and the Study of Tourism: Theoretical and Personal Reflections*. In Crick M (eds.). *Resplendent Sites, Discordant Voices: Sri Lankans and International Tourism*. Chur, Switzerland: Harwood Publishers.
12. Wood R. (1997). *Tourism and the State: Ethnic Options and the Construction of Otherness*. In Picard and Wood *Tourism, Ethnicity and the State in Asian and Pacific Societies*. University of Hawaii Press.
13. Richard B. (1992). *Alternative Tourism: The Thin Edge of the Wedge*. In Valene Smith and Eadington *Tourism* (eds.). *Alternatives: Potentials and Problems in the Development of Tourism*. University of Pennsylvania Press.
14. Hitchcock. (1997). *Cultural, Economic and Environmental Impacts of Tourism Among the Kalahari*. In Chambers E (eds.) *Tourism and Culture: An Applied Perspective*. SUNY Press.

**SKILL ENHANCEMENT COURSE 2 (ANS 4.11)
ANTHROPOLOGY OF DISASTER**

Practical Credit: 2

Teaching Hours: 30

- UNIT I** a) Introduction to Disaster: Definition and concept, types, vulnerability, risk, coping
b) Anthropological approaches to study disasters - archaeological/historical, political ecology, socio-cultural behavioral, gendered perspective.
- UNIT II** a) Methods for studying disasters, Health, social and economic impacts of disaster.
b) Plans and National policies concerning disasters, disaster risk mitigation, disasters management.

Note: *Students are to write an assignment or a project on a recent disaster (local, state, national level)*

Recommended Books and References:

1. The Angry Earth: Disasters in Anthropological perspectives. A. Oliver-Smith and SM Hoffman. Routledge. 1999.
2. Community in Disaster. WH Form and S. Nosow. Harper. 1958.
3. Environmental Disaster and the Archaeology of Human Response. G. Bawden and RM Reycraft. University of New Mexico Press. 2000.
4. The Northridge Earthquake: Vulnerability and Disasters. RC Bolin! Stanford. 2000.
5. Disasters, Relief and the Media. J Benthall. IB Tauris and Company Ltd. 1993.
6. Mapping Vulnerability. J Bankoff and G Frerks. Earthscan. 2004.
7. Natural Disasters. A. Alexander. Routledge Taylor and Francis. 1993.
8. Confronting Catastrophe: New perspective on Natural Disasters. DE Alexander. Terra Publishing. 2000.
9. Terrorism and Disasters: New threats, new ideas. LB Clarke. JAI Press. 2003.
10. Methods for Disaster Mental Health Research. FH Norris, S Galea, MT Friedman, PJ Watson, Guilford Press. 2006.
11. Phenomenology of Disasters: Towards a Rhetoric of Tragedy. Pennsylvania State University Press. 2006.