

Proposed Syllabus and Scheme of Examination

for

B.Sc. (Honors) Anthropology

Submitted

to

Faculty of Science

University of Delhi

Under

Choice Based Credit System

April 2015

Anthropology

S.No.	Core Paper	Theory	Practical
1.	Introduction to Biological Anthropology	√	√
2.	Introduction to Socio-cultural Anthropology	√	√
3.	Archaeological Anthropology	√	√
4.	Fundamentals of Human Origin & Evolution	√	√
5.	Tribes and Peasants in India	√	√
6.	Human Ecology: Biological & Cultural dimensions	√	√
7.	Biological Diversity in Human Populations	√	√
8.	Theories of Culture and Society	√	√
9.	Human Growth and Development	√	√
10.	Research Methods	√	√
11.	Human Population Genetics	√	√
12.	Anthropology in Practice	√	√
13.	Forensic Anthropology	√	√
14.	Anthropology of India	√	√

S.No.	Elective courses	Theory	Practical
1.	Physiological Anthropology	√	√
2.	Sports and Nutritional Anthropology	√	√
3.	Human Genetics	√	√
4.	Neuro Anthropology	√	√
5.	Forensic Dermatoglyphics	√	√
6.	Paleoanthropology	√	√
7.	Anthropology of Religion, Politics and Economy	√	√
8.	Tribal Cultures of India	√	√
9.	Indian Archaeology	√	√
10.	Visual Anthropology	√	√
11.	Fashion Anthropology	√	√
12.	Demographic Anthropology	√	√
13.	Urban Anthropology	√	√
14.	Anthropology of Health	√	√

Interdisciplinary/Generic elective

- | | |
|----------------------------------|---------------------------------------|
| 1) Health science | 11) Forensic Science |
| 2) Home science | 12) Neuro-science |
| 3) Biotechnology | 13) Physical Education |
| 4) Psychology | 14) Tourism Administration |
| 5) Animation and Visual Graphics | 15) Insurance and Banking |
| 6) Interior Design | 16) Journalism and Mass Communication |
| 7) Economics | 17) BCA |
| 8) Environmental Science | 18) BBA |
| 9) Fashion Design | 19) Hotel Management |
| 10) Food Technology | 20) BBA (Health Care Management) |
| 21) Marine Science | |

Ability enhancement Elective (skill based)

- | | |
|--|-------------------------|
| 1) Public Health and Epidemiology | 3) Media Anthropology |
| 2) Business and Corporate Anthropology | 4) Tourism Anthropology |

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.

CORE PAPRES

Credits: Papers X (Theory +Practical) = 14 X (4+2) = 84

1. Introduction to Biological Anthropology

Theory

Credit- 4

Unit I: History and development of understanding human variation and evolutionary thought. Theories of evolution.

1. Human variation and evolution in ancient times pre-19th and post-19th Century.
2. Theories of evolution. Lamarckism, Neo Lamarckism, Darwinism, Synthetic theory, Mutation and Neo-Mutation theory.

Unit II: 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 III: Non-human primates in relation to human evolution

1. Classification and characteristics of living primates.
2. Comparative anatomy and behaviour of human and non-human primates.
3. Significance of non-human primate study in Biological Anthropology. **Unit**

IV: Great divisions of humanity

1. A comparative account of various racial classifications (Hooton, Deniker, Risley and Guha)
2. UNESCO Statement on Race.
3. Recent understanding of human biological categories in the context of human genome research.

Practicals

Credit-2

Somatometry

- | | |
|--------------------------------|---------------------------------------|
| 1. Maximum head length | 9. Physiognomic facial height |
| 2. Maximum head breadth | 10. Morphological facial height |
| 3. Minimum frontal breadth | 11. Physiognomic upper facial height |
| 4. Maximum bizygomatic breadth | 12. Morphological upper facial height |
| 5. Bigonial breadth | 13. Head circumference |
| 6. Nasal height | 14. Stature |
| 7. Nasal length | 15. Sitting height |
| 8. Nasal breadth | 16. Body weight |

Somatoscopy

- | | | | |
|--------------|----------------|----------------|----------------|
| 1. Head form | 2. Hair form | 3. Facial form | 4. Eye form |
| 5. Nose form | 6. Hair colour | 7. Eye colour | 8. Skin colour |

Suggested Readings

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.

2. Introduction to Socio-cultural Anthropology

Theory

Credit- 4

Unit I:

Anthropological perspective and orientation; Scope and relevance of Social Anthropology; Relationship of Social Anthropology with other disciplines

Unit II:

Concepts of society and culture; status and role; groups and institution, social stratification, and civil society.

Social fact; social action; social conflict; social system

Unit III

Kinship and Descent: Marriage and Family. Kinship, Marriage and Family in India.

Unit IV

Religion and Magic – Concept, Theories and Functions. Economic and Political Institutions.

Practical

Credit- 2

Methods and Techniques of Social Anthropology: The practical will include the following techniques and methods in collection of data in Social Anthropology.

1. Observation
2. Interview
3. Questionnaire and Schedule
4. Case study
5. Life history

Suggested Readings

1. Beattie J. (1964). *Other Cultures*. London: Cohen & West Limited.
2. Bernard H.R. (1940). *Research Methods in Cultural Anthropology*. Newbury Park: Sage Publications.
3. Davis K. (1981). *Human Society*. New Delhi: Surjeet Publications.
4. Delaney C. (2004). 'Orientation and disorientation' In *Investigating Culture: An Experiential Introduction to Anthropology*. Wiley-Blackwell.
5. Ember C. R. et al. (2011). *Anthropology*. New Delhi: Dorling Kindersley.
6. Ferraro G. and Andreatta S. (2008). In *Cultural Anthropology: An Applied Perspective*. Belmont: Wadsworth.
7. Karen O'Reilly. (2012). 'Practical Issues in Interviewing', *Ethnographic Methods*. Abingdon: Routledge
8. Lang G. (1956). Concept of Status and Role in Anthropology: Their Definitions and Use. *The American Catholic Sociological Review*. 17(3): 206-218
9. O'reilly K. (2012). *Ethnographic Methods*. Abingdon: Routledge.
10. Parsons T. (1968). *The Structure of Social Action*. New York: Free Press
11. Rapport N. and Overing J. (2004). *Key Concepts in Social and Cultural Anthropology*. London: Routledge.
12. Royal Anthropological Institute of Great Britain and Ireland (1971). 'Methods', In *Notes and Queries on Anthropology*. London: Routledge & Kegan Paul Ltd.

3. Archaeological Anthropology

Theory

Credit- 4

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
- Relative dating methods
- Methods of climatic reconstruction: palynology, paleontology, soil pH estimation.

Unit III: Geochronology of Pleistocene Epoch

- Glacial and Interglacial
- Pluviation and Inter Pluviation
- Different types of geoclimatic events

Unit IV: Understanding Culture

- Technique of tool manufacture and estimation of their relative efficiency
- Classification of tools: primary and combination fabrication techniques
- Typology and cultural nomenclature

Unit V: Earliest Evidence of Culture in the World

- Konso, Olorgesailie, Olduvai Gorge
- Pirro Nord, Dmanisi
- Attirampakkam, Isampur

Practical

Credit- 2

Typo-technological Analysis of Prehistoric Tools: Identification, Interpretation and Drawings of the tool Types

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

Suggested Readings

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

4. Fundamentals of Human Origin & Evolution

Theory

Credit- 4

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

Unit-VI:

Homination process

Practical**Credit- 2**

- | | | |
|-----------------|-----------------------------|-------------------------|
| 1. Craniometry: | Maximum cranial length | Maximum cranial breadth |
| | Maximum bizygomatic breadth | Maximum frontal breadth |
| | Minimum frontal breadth | Nasal height |
| | Nasal breadth | Bi-mastoid breadth |
| | Greatest occipital breadth | Upper facial height |
| | Cranial index | Nasal index |
2. Osteometry: Measurements of long bones: lengths, minimum/least circumference and caliber index
 3. Identification of casts of fossils of family hominidae: Drawing and comparison of characteristics.

Suggested Readings

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. Standford 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., New Delhi.

5. Tribes and Peasants in India**Theory****Credit- 4**

Unit I: Anthropological Concept of Tribe

1. Problems of nomenclature, definition and classification.
2. Features of tribes in India.

Unit II: Tribes and Wider world.

1. The history of tribal administration; Constitutional safeguards
2. Draft National Tribal Policy, Issues of acculturation assimilation and integration. Impact of development schemes and programme on tribal life

Unit III: Anthropological Concept of Village

1. The concept of peasantry.
2. Approaches to the study of peasants - economic, political and cultural.
3. Characteristics of Indian village: social organization; economy and changes.
4. Caste system and changes.

Unit IV

Ethnicity Issues: Tribal and peasant, movements; Identity issues

Practical

Credit- 2

Reading of Ethnography: Students are required to read and analyze any two of the ethnographies (as listed below) and prepare a report based upon it. The report should clearly link up the study with the concept of tribe and peasantry and delineate clearly the concept used in the text.

1. Research questions/objectives of the study and their relevance.
2. Theoretical schema.
3. Methods and techniques used in the study.
4. Key findings and their significance in the context of the objectives of the study.
5. Critical analysis of the finding on the basis of contemporary available resources. **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.

Suggested Readings

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.

6. Human Ecology: Biological & Cultural dimensions

Biological Dimensions

Unit 1: Concepts in Ecology: Definition, ecosensitivity adaptation, acclimation, acclimatization, biotic and abiotic component.

Unit II: Methods of studying human ecology.

Unit III: Adaptation to various ecological stresses; Ecological rules and their applicability to human populations.

Unit IV: Impact of urbanization and industrialization on Man.

Cultural Dimensions

Unit V: Culture as a tool of adaptation; Various modes of human adaptation in pre-state societies.

i. Hunting and food gathering ii.

Pastoralism

iii. Shifting cultivation

Unit VI: Ecological themes of state formation: i. Neolithic revolution, ii. Hydraulic civilization

Unit VII: Agriculture and peasantry; Industrial civilization and growth of urban societies

Practical**Credit- 2**

Biological Dimensions

Size and Shape Measurements

1. Stature

5. Total Lower Extremity Length

2. Sitting Height

6. Nasal Breadth

3. Body Weight

7. Nasal Height

4. Total Upper Extremity Length

Size and Shape Indices

1. Body Mass Index

4. Relative Upper Extremity Length

2. Ponderal Index

5. Relative Total Lower Extremity Length

3. Relative Sitting Height

6. Nasal Index

Cultural Dimensions

1. Make a research design pertaining to any environmental problem and do a project based on it.

Suggested Reading

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.

7. Biological Diversity in Human Populations

Theory

Credit- 4

- Unit I: Concept of Biological Variability; Race; Hardy-Weinberg Law; Sources of Genetic Variation; Structuring Genetic Variation; Interpretation of Human Variation, Genetic Polymorphism (Serological, Biochemical and DNA Markers); Human Adaptability -Adaptive Mechanisms determining the types of adaptation.
- Unit II: A critical appraisal of contribution of Risley, Guha, Rickstett and Sarkar towards understanding ethnic elements in the Indian populations.
- Unit III: Pre and Proto historic racial elements in India. Linguistic classification of Indian population.
- Unit IV: Role of Bio-cultural Factors
Cultural Biology; Bio-cultural factors influencing the diseases and nutritional status. Evolution of Human diet, biological perspectives of ageing process among different populations.
- Unit V: Demographic Perspective
Demographic Anthropology; Sources of Demographic Data, Demographic Processes, Demographic profile of Indian populations and its growth structure; Inbreeding and Consanguinity - Biological consequences of inbreeding, frequency of inbreeding in world populations; Methods of counselling.
- Unit VI: Genetic diversity among Indian Population

Practical

Credit- 2

1. Craniometric Measurements (Skull & Mandible)
2. Determination of A1, A2, B, O; M N; and Rh (Test with five Anti-Rh sera) blood groups of ten subjects.
3. Analysis and interpretation of finger ball pattern types, palmar main lines and pattern index; Finger print classification and development of chance prints and statistical treatment of the data collected (Ten Subjects)
4. Collection of demographic data from secondary sources.

Suggested readings:

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.

8. Theories of Culture and Society

Theory

Credit- 4

Unit I: Emergence of Anthropology: Interface with evolutionary theory and colonialism, changing perspectives on Evolutionism, Diffusionism and Culture area theories

Unit II: Emergence of fieldwork tradition, Historical Particularism, American Cultural Tradition

Unit III: Durkheim and social integration, Functionalism and Structural-functionalism and British Social Anthropology

Unit IV: Structuralism: Claude Levi-Strauss and Edmund Leach Unit

V: Symbolic and Interpretative approach

Practical

Credit- 2

As a part of the practical following exercises will be undertaken by the students so as to enable them to connect the theories they learn with things of everyday living.

1. To identify a topic relating to contemporary issue and formulate research questions and clearly identify the theoretical perspectives from which they are derived.
2. Identification of variables of a study.
3. Various types of hypotheses.
4. Formulation of hypothesis.
5. Distinction between hypothesis testing and exploratory research.
6. Identification of universe and unit of study with justifications.
7. Choice of appropriate research technique and method in the context of theoretical framework.
8. Data collection and analysis

Suggested Readings

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.

9. Human Growth and Development

Theory

Credit- 4

Unit I: Concept of human growth, development, differentiation and maturation. Evolutionary perspective on human growth (including living primates and fossil human ancestors)

Unit II: Prenatal (conception till birth) and postnatal (birth till senescence) period of growth, pattern of normal growth curves, variation from normal growth

(canalization, catch-up growth and catch-down growth), ethnic and 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 ethnic differences

Unit VI: Somatotyping and human physique with reference to Sheldon, Parnell, Heath and Carter methods

Unit VII: Bio-cultural adaptation to environmental stresses- heat, cold and altitude. Homeostasis and thermoregulation, ecological rules and their applicability among human beings

Practical

Credit- 2

1. Growth status: Somatometry (stature, body weight, mid upper arm circumference etc), assessment of chronological age, percentile, z-score, height for age, weight for age, BMI for age
2. Obesity assessment: General (BMI, body fat %, Conicity index, body adiposity indices) and regional adiposity indices (WC, WHR, WHtR)
3. Estimation of body composition (fat percentage and muscle mass) with skinfold thickness and bioelectric impedance
4. Nutritional assessment through dietary pattern and anthropometric indices

Suggested Readings

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 Himalyan 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.

10. Research Methods

Theory

Credit- 4

Unit I: Research Design

Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis, sampling, tools and techniques of data collection, data analysis and reporting, guiding ideals and critical evaluation of major approaches in research methods, basic tenets of qualitative research and its relationship with quantitative research.

Unit II: Field work tradition in Anthropology

Ethnographic approach, contribution of Malinowski, Boas and other pioneers; cultural relativism, ethnocentrism, etic and emic perspectives, comparative and historical methods, techniques of rapport establishment identification of representative categories of informants, maintenance of field diary and logbook

Unit III: Tools and techniques of data collection

Concept of survey, relationship of survey method with ethnographic method, construction of questionnaire and interview schedule, validation and internal consistency of questionnaire

Observation - Direct, Indirect, Participant, Non-participant, Controlled

Interview - Structured and unstructured, Focused Group Discussion, key informant interview

Case Study and life history

Genealogy - Technique and application

Unit IV

1. Identify, define, and analyze ethical issues in the context of human subject research.
2. Issues of academic fraud and plagiarism, conflicts of interest, authorship and publication Analysis and Writing Up
3. 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, review and index.
4. Similarities and differences between qualitative and quantitative data analysis; introduction of software for data analysis.

Unit V: Bio-Statistics

1. Types of variables, presentation and summarization of data (tabulation and illustration).
2. Descriptive statistics- Measures of Central Tendency, Measure of Variation, Skewness and Kurtosis, Variance and standard deviation, Normal and binomial distribution.
3. Tests of Inference- Variance ratio test, Student's „t“ tests, Chi-square test and measures of association.
4. Pedigree Analysis- Importance and implication.

Practical

Credit- 2

1. Construction of Genealogy.
2. Observation: Direct, Indirect, Participant, Non-participant, Controlled
3. Questionnaire and Schedule, Interview- Unstructured, Structured, Key informant interview, Focused Group Discussion, and Free listing, pile sorting
4. Case study and life history

5. Project report writing- preparation of research problem, study design, data collection techniques, analysis and report writing based on somatometric, dermatoglyphic and serological data or social problem.

Suggested Readings

- 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. □
- Bernard H.R. *Research Methods in Anthropology, Qualitative and Quantitative Approaches*. Jaipur: Rawat Publications. 2006.
- Madrigal L. *Statistics for Anthropology*. Cambridge: Cambridge University Press. 2012. □ Zar JH. *Biostatistical Analysis*. Prentice Hall. 2010.
- Michael A. *The Professional Stranger*. Emerald Publishing. 1996.
- Bernard R. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. AltaMira Press. 2011.
- Emerson RM, Fretz RI and Shaw L. *Writing Ethnographic Fieldnotes*. Chicago, University of Chicago Press. 1995.
- Lawrence NW. *Social Research Methods, Qualitative and Quantitative Approaches*. Boston: Allyn and Bacon. 2000.
- O'reilly K. *Ethnographic Methods*. London and New York: Routledge. 2005.
- Patnaik S.M. *Culture, Identity and Development: An Account of Team Ethnography among the Bhil of Jhabua*. Jaipur: Rawat Publications. 2011.
- Pelto PJ and Pelto GH. *Anthropological Research, The Structure of Inquiry*. Cambridge: Cambridge University Press. 1978.
- Sarantakos S. *Social Research*. London: Macmillan Press. 1998.

11. Human Population Genetics

Theory

Credit- 4

Unit I. Essentials of Genetics

Landmarks in the history of genetics, principles in human genetics, single locus (Mendelian) versus multilocus (quantitative/complex) inheritance, 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; Cytoplasmic inheritance).

Unit II. Ecological Genetics and Polymorphism

phenotypic & genotypic polymorphisms, transient polymorphism, balanced polymorphisms, models explaining the maintenance of genetic polymorphism (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 (inbreeding co-efficient and its genetic consequences)

Unit V: Population structure and admixture in human populations

random & non-random mating (positive and negative assortative mating), heritability, linkage disequilibrium, genetic markers utility of genetic markers in forensic, population and disease association studies.

Unit VI: Human evolutionary genetics

From Mendel to molecules: A brief history of evolutionary genetics, Epistasis and the conversion of genetic variances, Human-Ape comparisons.

Practical

Credit- 2

1. Blood group typing-A1, A2, B, O, MN and Rh (D) blood groups
2. Color Blindness
3. Glucose-6-phosphate dehydrogenase deficiency(G6PD)
4. PTC tasting ability
5. Biochemical markers-DNA isolation and polymerase chain reaction (PCR)

Suggested Readings

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. Hurls 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.

12. Anthropology in Practice

Theory

Credit- 4

Unit I: Academic and Applied Anthropology

Academics and Practitioners: Differences, Structure, Activities, Controversies and Issues: Applied Anthropology, Action Anthropology and Development Anthropology.

Unit II: Role of Anthropology in Development

Anthropology and Public Policy, Need Assessment and Community Development, Anthropology of NGO's, Management Anthropology, Environment and Community Health, Social and economic sustainability, Cultural resource management

Unit III: Future Directions in Anthropology

Trends in Anthropology: Anthropology of Tourism, Anthropology in Census; Designing And Fashion, Visual Anthropology, Medical Anthropology. Importance of Museums.

Unit IV: Constitutional Perspective and Human Rights

Constitutional Provisions, Evaluation, Planning and Development of Indian Populations; Human Rights, Interrelationships of rights and duties: Harmony and Conflict, Protection and enforcement of human rights and duties, National and State Human Rights Commission and other grievance redressal mechanism, Human rights of special category and marginal groups, Emerging trends of human rights respective to terrorism, environment and globalization

Unit V: Biosocial anthropology in practice

Bio-social elements of human development at national and international level, Population Dynamics and relationship between population growth and various aspects of culture such as means of subsistence, kinship, social complexity, social stratification and political organization, Bio-social counseling of an individual or population

Practical

Credit- 2

1. The students will visit a NGO or corporate office or census office in Delhi and its adjoining areas and write principal observations on the same.
2. Write a project on constitutional provisions or evaluation of any development project/report.
3. Draw a scene of crime and identify the various evidences in a portrayed crime scene.
4. Write a project on Religious Tourism / Tribal Tourism / Health Tourism / Fashion / Human Rights / Ecotourism.
5. Write a project on the demographic profile from secondary data.
6. Collect data on bio-social problem and design counselling and give the analysis and interpretation.

Suggested Readings

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 Practice, 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. Kumar RK and Kapoor AK. (2009). Management of a Primitive Tribe: Role of Development Dynamics. Academic Excellence, Delhi.
17. Mehrotra N and Patnaik SM. (2008). Culture versus Coercion: The Other Side of Nirmal Gram Yojna, Economic and Political weekly. pp 25-27.
18. Mishra RC (2005). Human Rights in a Developing Society, Mittal Publications, Delhi.
19. Noaln RW. (2002). Anthropology in Practice: Building a Career outside the Academy. Publishing Lynne Reinner.
20. Patnaik SM (1996). Displacement, Rehabilitation & Social Change. Inter India Publications, New Delhi.
21. Patnaik SM (2007). Anthropology of Tourism: Insights from Nagaland. The Eastern Anthropologist. 60(3&4):455-470
22. Srivastav OS (1996). Demographic and Population Studies. Vikas Publishing House, India
23. Vidyarthi LP and BN Sahay (2001). Applied Anthropology and Development in India, National Publishing House, New Delhi.
24. Vidyarthi LP. (1990). Applied Anthropology in India - Principles, Problems and Case Studies. Kitab Mahal, U.P.
25. Vidyarthi V (1981). Tribal Development and its Administration. Concept Publishing Company, New Delhi.
26. Kalla AK and PC Joshi (eds.) (2003) Tribal Health and Medicines. Concept Publishing Company Limited, New Delhi.
27. Bhat, HK, PC Joshi and BR Vijayendra (eds.) (2013) Explorations in Indian Medical Anthropology. Concept Publishing Company Limited, New Delhi.

13. Forensic Anthropology

Theory

Credit- 4

Unit-I

Introduction to Forensic Anthropology: Definition, Brief History, Scope, Applications and Integration of Forensic Anthropology.

Unit-II

Basic Human Skeletal Biology, Identification of Human and Non-Human Skeletal Remains, Ancestry, age, sex and stature estimation from bones, Discovery and Techniques for recovering skeletonized Human Remains.

Unit-III

Personal Identification, Complete and Partial Identification, Methods of Identification in Living Persons: Somatometry, Somatoscopy, Occupational Marks, Scars, Bite Marks, Tattoo Marks, Fingerprints, Footprints, Lip Prints, Nails, Handwriting, 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.

Practical

Credit- 2

1. Study of Human Long Bones. Estimation of age, sex and stature from bones.
2. Somatometric and Somatoscopic Observation on living persons.
3. Identification of bloodstain, urine, semen and saliva.
4. Examination of Fingerprints and Handwriting.

Suggested Readings:

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.
10. . Klepinger LL (2006). *Fundamentals of Forensic Anthropology*. Wiley-Liss Publications

14. Anthropology of India

Theory

Credit- 4

Unit I:

1. Origin, history and development of Anthropology in India, approaches to study Indian society and culture- traditional and contemporary
2. Racial and linguistic elements in Indian population
3. Understanding the diversity of Indian social structure - concept of Varna, Jati, Caste, Ashram or purusharatha, gender hierarchies - their economic and cultural impact, origin and evolution of social structures and their underlying philosophies.

Unit II:

1. Critical appraisal of contribution of Risley, Guha, Rickstett and Sarkar towards understanding ethnic distinctness in the Indian populations
2. Contribution of conetemporary biological, social and archaeological anthropologists in India.

Unit III:

1. Aspects of Indian Village -social organisation, agriculture and impact of market economy on villages
2. Tribal situation in India- biogenetic variability, linguistic and socio-economic characteristics; Problems of tribal peoples, land-alienation, indebtedness, lack of educational facilities, shifting-cultivation, migration, forests and tribal unemployment, health and nutrition, tribal movement and quest for identity
3. Developmental projects- tribal displacements and rehabilitation problem
4. Impact of culture-contact, urbanization and industrialization on tribal and rural population
5. Basic concepts -Great tradition and little tradition, sacred complex, Universalization and parochialization, Sanskritization and Westernization, Dominant caste, Tribe-caste continuum, Nature-Man-Spirit complex, pseudotribalism,

Unit IV:

1. Problems of exploitation and deprivation of scheduled caste/ tribe and Other Backward Classes.

2. Constitutional safeguards for the Scheduled caste and scheduled tribes.

Practical

Credit- 2

1. Identify various traits/variables which can be used in racial classification and comment on its relevance.
3. Review a book/edited volume on Indian social structure such as caste, religion, tribe or rural population and give its salient features.
2. Explore the biological diversity of any population group considering a minimum of five genetic traits.
3. Highlight the contributions of any two contemporary Indian anthropologists.

Suggested Reading

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.
17. Kalla AK. (1994) *Ethnology of India*. Munshiram Manoharlal Publishers. New Delhi.

ELECTIVE COURSES

Credits: Any four papers = Theory +Practical = (4+2)*4 = 24

1. Physiological Anthropology

Theory

Unit I: Fundamentals of work physiology- homeostasis; metabolism and energy and systems; exercise, respiratory system and haemodynamics (blood pressure, pulse rate, heart rate and oxygen- transporting system, blood flow ,Hb, heamatocrit etc) **Unit II:**

Acute physiological adjustments during transition from resting homeostasis to sub-maximal and maximal exercise; chronic physiological adaptations to exercise training; age, sex and population variation in the physiological characteristics

Unit III: Cardio-vascular and respiratory endurance, physical working capacity and physical fitness- evaluation of response and assessment; relationship of body measurements with cardio-vascular and respiratory functions, aerobic and anaerobic exercise training, health related fitness in gender and ethnic group. Principles of effective physical conditioning techniques

Unit III: Impact of smoking, alcohol, drug, pollution and occupation on cardio-respiratory functions; physical performance and environmental stress, chronic diseases, malnutrition, lifestyle disease

Unit IV: Factors affecting physical performance and capacity, relation between physique, body composition, nutrition and performance.

Unit V: Ageing and health related aspects of exercise

Practical

1. Cardiovascular function (Blood pressure, heart rate, pulse rate)
2. Respiratory function (Tidal volume, vital capacity, forced vital capacity, minute ventilation etc.)
3. Haemoglobin estimation
4. Step-test
5. Treadmill test

Suggested Readings:

1. McArdle WD, Katch FI and Katch VL. (2010). Exercise Physiology: Nutrition, Energy, and Human Performance. Lippincott Williams & Wilkins.
2. Powers SK and Howley ET. (2007). Exercise Physiology: Theory and Application to Fitness and Performance. McGraw-Hill.
3. Sherwood L. (2008). Human Physiology: From Cells to Systems. Brooks Cole.
4. Case RM. (1985). Variations in Human Physiology. Manchester University Press.
5. Vander AJ, Sherman JH and Dorothys L. (1978). Human Physiology: The Mechanisms of Body Functions. Mc Graw-Hill Education.

6. Nageswari KS and Sharma S. (2006). Practical workbook of Human Physiology. Jaypee Brothers, Medical Publisher.
7. Wildmaier EP, Raff H, Strang KT. (2014). Vander's Human Physiology: The Mechanisms of Body. Mc Graw Hill Education.
8. Hale T. (2003). Exercise Physiology. England :John Wiley & Sons Inc.

2. Sports and Nutritional Anthropology

Theory

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; cultural constructions and physiologic implications of food across time, space and society; an integrated bio-behavioural perspective towards food preference.

Practical

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

Suggested Readings

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.

3. Human Genetics

Theory

Unit I: Structure, Function and Inheritance of the human genome- gene, DNA structure and replication, DNA repair and recombination, gene expression, coding and non-coding region

Unit II: Expression of genetic information: from Transcription to Translation - the relationship between genes and protein, transcriptions; transcription and RNA processing, encoding genetic information, decoding the codons: the role of transfer RNAs

Unit III: Genomic Variation: Genomic Polymorphisms (SNPs, VNTR, CNVs, etc); haplotypes and haplogroups; genotype-phenotype correlations, epigenetics

Unit IV: Methods of Genetic Study in Human: Pedigree analysis and expressivity; Chromosomal Basis of Genetic Disorders (Karyotypes and identification of chromosome variation; Nucleic Acid Hybridization Assays, cytogenetic mapping), Genetic mapping (Microsatellite and other DNA polymorphisms), LOD score; sequencing strategies (PCR based Sanger sequencing to Exome sequencing), concept of non-mendelian inheritance and complex diseases

Unit V: Genomic Diversity & Human Evolution

1. Peopling of the Indian Subcontinent: Evidence from mtDNA and Y-chromosome; evolutionary genetics; Molecular evolution; DNA sequence variation and human origins

Practical

1. Blood Collection, transportation and storage in field
2. DNA Extraction from whole blood
3. DNA Quantification, Aliquoting and sample preparation
4. PCR and electrophoresis
5. Gel Documentation

Suggested Readings:

1. Strachan T and Read AP. (2004). Human Molecular Genetics. Garland Science
2. Brown TA. (2007). Genomes. Garland Science.
3. Griffiths AJF. (2002). Modern Genetic Analysis: Integrating Genes and Genomes. WH Freeman Press.
4. Griffiths AJF, Wessler SR, Carroll SB, Doebley J. (2011). An Introduction to Genetic Analysis. Macmillan Higher Education.
5. Cavalli-sforza LL, Menozzi P, Piazza A (1994). History and Geography of Human Genes. Princeton University.
6. Giblett, ER. (1969). Genetic Markers in Human Blood. Blackwell Scientific, Oxford.
7. Cummings MR (2011). Human Heredity: Principles and Issues. Brooks/Cole, Cengage Learning
8. Jobling M, Hurlst M and Tyler-Smith C. (2004). Human Evolutionary Genetics: Origins, Peoples & Disease. New York: Garland Science.
9. Lewis R. (2009). Human Genetics: Concepts and Application. The McGraw–Hill Companies, Inc.
10. Patch C. (2005). Applied Genetics in Healthcare. Taylor & Francis Group
11. Vogel F. and Motulsky A.G. (1996). Human Genetics. Springer, 3rd revised edition.
12. Snustad .D.P. and Simmons M.J. (2006). Principles of Genetics, Fourth Edition, John Wiley & Sons USA

4. Neuro Anthropology

Theory

Unit 1: Encultured Brain

The Basics of Neuroanthropology

The Nature of Variation

Evolution by Natural Selection

Unit 2: Overview of Neural Systems & Their Interconnections

Niche construction

Primate Social Cognition, Human Evolution

Evolution and the Brain

- Unit 3: Memory & Medicine; Balancing Between Cultures
 - Balancing between Cultures: Equilibrium in Capoeira
 - Human Capacities, Skills and Variation
 - Stone Age Body Image :Male embodiment in subsistence societies Unit
- 4: Overcoming Mind/Body Dualism
 - Addiction and Neuroanthropology
 - Ritual and Emotion
 - War and Dislocation: Neuroanthropological model of trauma
 - Autism,theory of mind and religious development
 - Cultural consonance, consciousness and depression
- Unit 5: Neuroconstructivism and Embodied Learning
 - Human Development: A Biocultural Process
 - Enculturation and Memory
 - The Neuroanthropology of Stress
 - The Neuroanthropology of PTSD(Post traumatic stress disorder)
 - Psychiatry in Neuroanthropological Perspective
- Unit 6: Neurological and Anthropological Methods
 - Neuroanthropology Applied
 - Critical Neuroscience
 - The Social and Personal Uses of Neuroscience

Practical:

- Case Studies on Human behavior, Capacities, Skills, and Variation
- Prepare a report on socio-cultural and biological perspective of human behavior and inter-individual variation.
- Somatometric measurements of human skull and relation with neural activity.
- Class blog participation :Once every week, each student will be responsible for finding one source in the popular/lay press that's related to the topic for that week (e.g., from newspapers, news magazines, science magazines), and introducing a brief online discussion about what it says and why it's relevant

Suggested Reading:

- Downey,(2008) Balancing between Cultures, in The Encultured Brain.J.of Neuroanthropology
- Downey,(2010) „Practice without Theory“: A Neuroanthropological Perspective on Embodied Learning.JRAI
- Miller & Kinsbourne,(2011) Culture and Neuroscience in Development Psychology: Contributions and Challenges.Child Development perspectives.<http://onlinelibrary.wiley.com/doi/10.1111/j.1750-8606.2011.00188.x/abstract>
- Worthman,(2010) The Ecology of Human Development: Evolving Models for Cultural Psychology [*Required for 500 level, optional for 400 level*]
- <http://jcc.sagepub.com/content/41/4/546.abstract>
- Davidson & McEwen,(2012) Social Influences in Neuroplasticity: Stress and Interventions to Promote Well-Being.J.of Nature Neuroscience
- <http://www.nature.com/neuro/journal/v15/n5/full/nn.3093.html>
- Bonanno et al.,(2011) Weighing the Costs of Disaster: Consequences, Risks, and Resilience in Individuals, Families, and Communities. Association for psychological science
- Luhrmann,(2012) Beyond the Brain <http://www.wilsonquarterly.com/article.cfm?AID=2196>

- Kirmayer & Gold,(2012). Re-Socializing Psychiatry: Critical Neuroscience and the Limits of Reductionism, in Critical Neuroscience. Blackwell Reference online.
- Lende and Downey,(2012)The Encultured Brain: An introduction to Neuroanthropology.Cambridge:Massachusetts Institute of Technology Press.
- Goldin&Merrick,(2012)Neuroscience or Neurobabble, http://www.stats.org/stories/2012/Neuroscience_Or_Neurobabble_jul16_12.html
- Margulies,(2011) The Salmon of Doubt, in Critical Neuroscience.
- Lende, (2012)Neuroanthropology, Applied Research, and Developing Interventions.<http://blogs.plos.org/neuroanthropology/2012/05/10/neuroanthropology-applied-research-and-developing-interventions/>
- Buchowski et al.,(2011) Aerobic Exercise Training Reduces Cannabis Craving and Use in Non-Treatment Seeking Cannabis-Dependent Adults <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0017465>
- <http://www.mc.vanderbilt.edu/news/releases.php?release=2044>
- Xue et al.,(2012) A Memory Retrieval-Extinction Procedure to Prevent DrugCravingandRelaps.<http://www.sciencemag.org/content/336/6078/241.full>

5. Forensic Dermatoglyphics

Theory

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- Henry Classification, Vucetich System, Single-Digit Classification.

Unit-III: Types of Fingerprints: Plastic, Visible and Latent Prints. Conventional and Modern methods for development of latent fingerprints- Silver Nitrate, Ninhydrin, Iodine Fuming, 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.

Unit-V: Other Dermatoglyphic Patterns: Palm Print, Sole Prints and Toe Prints.

Unit-VI: Recent advances: Fingerprint and Palmprint Recognition, Automated Fingerprint Identification System.

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
4. Development of latent fingerprints using different chemical and powder methods.

Suggested Readings:

- Cowger, J. F. (1992). *Friction ridge skin: comparison and identification of fingerprints* (Vol. 8) CRC Press.
- Cummins, H., & Midlo, C. (1961). *Finger prints, palms and soles: An introduction to dermatoglyphics* (Vol. 319). New York: Dover Publications.
- Jain, A. K., Flynn, P., & Ross, A. A. (2007). *Handbook of biometrics*. Springer Science & Business Media.

- Lee, H. C., Ramotowski, R., & Gaensslen, R. E. (Eds.). (2001). *Advances in fingerprint technology*. CRC press.
- Berry, J., & Stoney, D. A. (2001). The history and development of fingerprinting. *Advances in fingerprint Technology*, 2, 13-52.
- Mehta, M. K. (1980). Identification of thumb impression and cross examination of fingerprints. N. M. Tripathi Publication, Bombay.

6. Paleoanthropology

Unit I: Dating methods, 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, differential rate of somatic evolution.

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, prehistoric hunter-gatherers, modern pastoral communities, emergence of prehistoric people in Africa).

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

Unit V: Palaeodemography- reconstruction of population patterns from skeletal analysis, determination of demographic variables in prehistoric populations and post-neolithic population growth, theory and techniques in paleodemography, methodological issues for reconstructing demographic structure, demographic models of mortality and their interpretation

Unit VI. Palaeopathology- bioarchaeological approach of disease; effects of agriculture, urbanization and slavery on health and disease; colonization and disease with special emphasis on the New World; dispersion of modern humans - molecular and morphological patterns of relationship

Practical

1. Comparative primate osteology
2. Description and identification of the disarticulated skeleton of non-human primates
3. Identification and description of fossil casts
4. Excursion to a site for seven days for collection of fossil material and its report

Suggested readings

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.

7. Anthropology of Religion, Politics and Economy

Unit I:

Anthropological approaches to understand religion- magic, animism, animatism, totemism, naturism; witchcraft and sorcery; Religious specialists: shaman, priests, mystics; Overview of Anthropological Theories of Religion; Religion as the sacrality of ecological adaptation and socialness

Unit II:

Economic institutions: principles of production, distribution, and consumption in simple and complex societies; critical examination of relationship between economy and society through neo-classical, substantivist, and neo-marxist approaches, various forms of exchange: barter, trade and market; Forms of currencies; reciprocities: generalized, balanced and negative.

Unit III:

Political institutions: concepts of power and authority; types of authority; state and stateless societies; law and justice in simple and complex societies; the prospects for democracy and tolerance among and within the world's diverse civilizations; the meaning and sources of identity in complex contemporary societies; the origins of modern politics, its institutions, and cultures, both Western and non-Western

Unit IV:

Interrelationship between religion, politics and economy; religious conversion and movements, emergence of new religious sects in the global order.

Practical

1. Case study of any of the social institute (religion, economic, political) with respect to culture perspective

Suggested Readings:

2. Durkheim E. (1986). The elementary forms of the religious life, a study in religious sociology. New York:Macmillan.
3. Benedict A. (2006). Imagined Communities: Reflections on the Origin and Spread of Nationalism. Verso
4. Gledhill J. (2000). Power and Its Disguises: Anthropological Perspectives on Politics. 2nd ed. London: Pluto Press.

5. Ellis F. (2000). A framework for livelihood analysis. In *Rural Livelihoods and Diversity in Developing Countries*. Oxford: Oxford University Press.
6. Henrich J, Boyd R, Bowles S, Camerer C, Fehr E, Gintis H, McElreath R, Alvard M et al. (2005). „Economic Man“ in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavior and Brain Science*. 28(6):795-815;
7. Henrich J. (2002). Decision-making, cultural transmission, and adaptation in economic anthropology. In: J. Ensminger (Ed.), *Theory in Economic Anthropology* (pp. 251-295). Walnut Creek, CA: Altamira Press.
8. Lambek. M. (2008) *A Reader in the Anthropology of Religion*.
9. Eller JD. (2007). *Introducing Anthropology of Religion*. New York: Routledge.
10. Glazier SD. (1997). *Anthropology of Religion: A Handbook*. Westport, CT: Greenwood Press.
11. Frick GD and Langer R. (2010). *Transfer and Spaces*. Harrassowitz (Germany).
12. Evans-Pritchard EE. (1937). *Witchcraft, Oracles and Magic among the Azande*, Oxford: Clarendon Press.
13. Frazer JG. (1978). *The Illustrated Golden Bough*, London: Macmillan.
14. Barbara M. (2011). *Cultural Anthropology*. New Jersey: Pearson Education.
15. Ember CR. (2011). *Anthropology*. New Delhi: Dorling Kinderslay.
16. Herskovits MJ. (1952). *Economic Anthropology: A Study in Comparative Economics*. New York: Alfred A Knopf Inc.
17. Malinowski B. (1922) *Argonauts of the Western Pacific*. London: Routledge.
18. Polyani K. et al (1957), *Trade and Market in the Early Empires*. Chicago: Henry Regnery Company.
19. Balandier G. (1972). *Political Anthropology*. Middlesex: Penguin.

8. Tribal cultures of India

Unit I: Concept of tribes and its problematic nature, General and specific characteristics of tribes, Tribes in India: Antiquity, historical, academic, administrative and anthropological importance, Denotified tribes.

Unit II: Tribe- caste continuum, Constitutional safeguard/provisions, Gender and Tribe, Distribution of tribes in India

Unit III: Tribes: Nomenclature- emic and etic differences, Classification of tribes based on their economy, occupation and religion, Racial elements among the tribes, Scheduled and non-scheduled categories of tribes

Unit IV: Tribal movements, Tribal monographs, Problems of tribal development

Unit V: Forest policies and tribes, Migration and occupational shift, Tribal arts and aesthetics Displacement, rehabilitation and social change Globalization among Indian tribes.

Practical

Distribution of Indian Tribes: PTG, ST

Location of different tribes on the map of India

Write an annotated bibliography on any one tribe

Write the social structure of any one tribe of India

Suggested Readings:

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. Vidarthy, L.P. and Rai. Applied Anthropology in India.
4. Vidarthy.L.P. and B.N. Sahay . Applied Anthropology and Development in India. New Delhi: National Publishing House

9. Indian Archaeology

Unit I: Understanding culture

- a. Technique of tool manufacture and estimation of their relative efficiency;
- b. Classification of tools: primary and combination fabrication techniques;
- c. Typology and cultural nomenclature.

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

III: Prehistoric India

Pleistocene chronology of India: A critical assessment

Unit IV: Character, distribution and interpretation of habitat and economy of : i

Lower palaeolithic

ii Middle palaeolithic

iii Upper palaeolithic

iv Mesolithic culture

v Art, ritual and belief

Practical

1. Identification of tools:

- | | |
|---|-----------------------|
| (a) Handaxe varieties, chopper/chopping tools | (f) End scrapers |
| (b) Cleaver varieties | (g) Borers |
| (c) Side scraper varieties | (h) Microlithic tools |
| (d) Knives | (i) Bone tools |
| (e) Burins | |

2. Identification of lithic technology.

Suggested reading:

1. D. K. Bhattacharya (1996) An Outline of Indian Prehistory. Delhi, Palika Prakashan.
2. H. D. Sankalia (1974) Prehistory and Protohistory of India and Pakistan. Poona, Deccan College.
3. H. D. Sankalia (1982) Stone Tool Type and Technology. Delhi, B.R.Publication.

10. Visual Anthropology

Theory

UNIT 1: Introduction to Visual Anthropology. Visual Culture. Photographic and Digital Media: Still, Interactive and Moving.

UNIT 2: Theory and Representation. Anthropology and Images: Ethnophotography and ethnographic films and mass media. Theories of representation, modern media and political advocacy.

UNIT 3: Early Ethnographic Photography: Contexts and Trends. Anthropology of Art and Aesthetics: Critical reflection on the relation of images, objects and persons. Objects and images from other societies valued as 'art'.

UNIT 4: Ethnographic Photography: Conventions and Methodologies. Paradigms and Debates.

UNIT 5: Ethnographic Films: Theoretical issues concerning ethnographic film, ethical dimensions of ethnographic film, Interdependency of technology and culture.

UNIT 6: Cinema Studies with emphasis on key feature, documentary and ethnographic films with a focal theme - the examination of the „language of film'.

Practical:

This paper deals with analysis of visuals such as photographs and films pertaining to cultural practices dealing with institutions of religion, economy and politics.

Theory and Representation: Anthropology and Images: Ethnophotography and ethnographic films and mass media. Theories of representation, modern media and political advocacy.

Anthropology of Art and Aesthetics: Critical reflection on the relation of images, objects and persons. Objects and images from other societies valued as 'art'.

Ethnographic Film and Cinema Studies: This unit consists of screenings followed by seminars. The emphasis will be on key feature, documentary and ethnographic films with a focal theme- the examination of the „language of film'.

Practical Implications: Explore traditional and experimental means of using visual and audiovisual media to research, represent and produce anthropological knowledge. Critical engagement with policy and the use of audio-visual and internet based media in advocacy and activism. The students are required to do the following exercises:

1. Basic principles of producing ethnographic films: text and its focus, camera angles, lighting and decision making behind the camera.
2. Analyze the visual data from classical ethnographies signifying how „otherness“ is constituted.
3. A gendered analysis of visuals produced during colonial and postcolonial times.
4. Hypertext and multimedia as analytic end points.
5. Collection, reporting and analysis of photo-ethnographic data.
6. Digital mirror: computer assisted exercises leading to production of ethnographic text.

Suggested Readings

1. Marcus Banks and Howard Morphy, 1998, Rethinking Visual Anthropology
2. David MacDougall Transcultural Cinema, (Princeton, 1999)
3. Ruby, Jay. 1996. “Visual Anthropology.” In Encyclopedia of Cultural Anthropology, David Levinson and Melvin Ember, editors. New York: Henry Holt and Company, vol. 4: 1345-1351.
4. Ch. 1, “Reading Pictures,” pp. 1-12 [From: Banks, Marcus. 2001. Visual Methods in Social Research. London: Sage.]
5. Ember C.R. et al (2011). Anthropology. New Delhi: Dorling Kinderslay. [Unit II, III, IV (Page: 282-321, 430-438, 464, 469-471)]
6. Banks M. and Ruby J. (2011). Made do Be Seen. Perspectives on the History of Visual Anthropology. University of Chicago Press [Practical]
7. Schneider A. and Wright C. (2010) Between Art and Anthropology: Contemporary Ethnographic Practice. Berg Publishers [Practical]
8. Henley P. (2010). The Adventure of the Real. Jean Rouch and the Craft of ethnographic Cinema. Chiacago University Press [Practical]
9. Pink S. (2010). Doing Sensory Ethnography. Sage Publications [Practical]
10. Grimshaw A. and Ravetz A. (2009). Observational Cinema. Anthropology, Film, and the Exploration of Social Life. Indiana University Press [Practical]

11. Fashion Anthropology

Theory

Unit-I. Introduction: Fashion, Consumption, and Anthropology: From Evolution to Compassionate Consumption, the Rise and Fall of Evolution in Dress

Unit II: Theoretical and Ethnographic Approaches to Understanding Fashion and Consumer Society

Unit III Colonialism, Dress, and Identity

Colonialism, Consumption, and Civilizing Fashion

Anti-colonial Dress, Clothing Debates in Burma and Africa

Unit IV: Race and Fashion: The 1980s "Japanese Invasion" and 1990s "Asian Chic"

Alternative Approaches to Consumerism

Unit V: Gender, Fashion and Consumption in different Human societies, application of fashion in traditional and modern societies, role of religion in fashion.

Unit VI: Globalization and Dress, leather cosmetic relationships, relationship of tribal clans with reference to embroidery color and designs in ethnic group of India.

Practical:

1. Identification of Pattern making Garment construction and color dynamics.

2. Sewing and Clothing manufacture practical.

3. Surface ornamentation, Textile crafts and Accessories Design in different ethnic group

4. A comparison of Computer aided design versus traditional designs

Suggested Readings

1. Allman, Jean. *Fashioning Power: Clothing, Politics and African Identities*. Bloomington: Indiana University Press, 2004.

2. Aronson, Lisa. "Body Modification and Art", in the *Berg Encyclopedia of World Dress and Fashion*, Volume 1, Africa. Berg Fashion Library, 2010.

3. Bachu, Parmindar. *Dangerous Designs: Asian Women Fashion the Diaspora Economies*. New York: Routledge, 2004.

4. Bradley Foster, Helen, and Johnson, Donald Clay. *Wedding Dress Across Cultures*. Berg Fashion Library, 2003.

4. Eicher, Joanne B., and Roach-Higgins, Mary Ellen. "Definition and Classification of Dress: Implications for Analysis of Gender Roles." In *Dress and Gender: Making and Meaning*. Oxford: Berg, 1992, 8-28.

5. Eicher, Joanne B., and Sumberg, Barbara. "World Fashion, Ethnic and National Dress", in *Dress and Ethnicity: Change Across Space and Time*. Berg Fashion Library, 1995.

6. El Guindi, Fadwa. *Veil: Modesty, Privacy and Resistance*. Berg Fashion Library, 2003 [1999].

7. Fair, Laura. "Veiling, Fashion, and Social Mobility: A Century of Change in Zamzibar", in *Veiling in Africa*. Bloomington: Indiana University Press, 2013, 15-33.

8. Fee, Sarah. "Anthropology and Materiality." In *The Handbook of Fashion Studies*. London: Bloomsbury, 2013, 301-324.

9. Gott, Suzanne, and Loughran, Kristyne. *Contemporary African Fashion*. Bloomington: Indiana University Press, 2010.

10. Hansen, Karen Tranberg. "The World in Dress: Anthropological Perspectives on Clothing, Fashion, and Culture" in *Annual Review of Anthropology*, 34 (2004): 369-392.

11. Hebdige, Dick. *Subculture: The Meaning of Style*. Routledge, 1979. ISBN: 0415039495

12. Hansen, Karen Tranberg. *Salaula: The World of Secondhand Clothing and Zambia*. Chicago, 2000. ISBN: 0226315819

13. Rooks, Noliwe. *Hair Raising: Beauty, Culture, and African American Women*. Rutgers, 1996. ISBN: 9780813523125

14. Miller, Daniel and Sophie Woodward, eds. *Global Denim*. Berg, 2011. ISBN: 9781847886316
15. Mangieri, Tina. "Fashion, Transnationality, and Swahili Men", in *African Dress: Fashion, Agency, Performance*. London: Bloomsbury, 2013, 153-167.
16. Schneider, Jane. "The Anthropology of Cloth", in *Annual Review of Anthropology*, 16 (1987): 409-448.
17. Smith, Fred T. "Archaeological Evidence", in the *Berg Encyclopedia of World Dress and Fashion*, Volume 1, Africa. Berg Fashion Library, 2010.
18. Tarlo, Emma, and Moors, Annelies. *Islamic Fashion and Anti-Fashion: New Perspectives from Europe and America*. London: Bloomsbury, 2013.
19. Tarlo, Emma. *Clothing Matters: Dress and Identity in India*. Chicago: University of Chicago Press, 1996.
20. Tarlo, Emma. *Visibly Muslim: Fashion, Politics, Faith*. Berg Fashion Library, 2010.

12. Demographic Anthropology

Theory

Unit I: Demographic Anthropology

1. Introduction, definition and basic concepts
2. Relationship between demography, population studies and anthropology
3. Importance of population studies in Anthropology

Unit II: Population Theories

1. John Graunt
2. Thomas R. Malthus
3. Biological theory of population
4. Theory of demographic transition

Unit III: Tools of Demographic Data

1. Measures of population composition, distribution and growth
2. Measures of fertility
3. Measures of mortality
4. Measures of migration

Unit IV: Population of India

1. Sources of demographic data in India
2. Growth of Indian population
3. Demography of Indian tribal and non-tribal groups
4. Anthropological determinants of population growth
5. Impact of urbanization on the migration of tribal groups

Unit V: National policies

1. National Population Policy
2. National Health Policy
3. National Policy on Reproductive Health Care

Practical

A student will collect and compile demographic data from different secondary sources on any given topic by the concerned teacher and a project report will be submitted for its evaluation.

Suggested Readings

1. Bhende A. and Kaniikar, T. (2006) *Principles of Population Studies*. Himalaya Publishing House. Mumbai (All Units, It covers most topics)
2. Caldwell J.C. (2006). *Demographic Transition Theory*. Springer.

3. Census of India (2001,2011), SRS bulletin (2013), NFHS (2006), CRS, NSSO (Can be seen from browsing net)
4. Gautam R.K., Kshatriya, G.K. and Kapoor A.K. (2010) *Population Ecology and Family Planning*. Serials publications. New Delhi.
5. Howell N. (1986) Demographic Anthropology. *Ann. Rev. Anthropol.* 15: 219-246
6. Kshatriya G.K. (2000). Ecology and health with special reference to Indian tribes. *Human Ecology special volume 9:229-245*.
7. Kshatriya G.K., Rajesh,G. and Kapoor , A.K. (2010) Population Characteristics of Desert Ecology.VDM Verlag Dr. Muller Gmbh and Co., Germany.
8. Misra BD (1982). *An introduction to the study of population. South Asia publ. ltd. New Delhi.*
9. National Population Policy <http://populationcommission.nic.in/npp.htm>
10. Park K. (2000) *Text book of Preventive and Social Medicine*. Banarsidas Bhanot, Jabalpur.
11. Patra P.K. and Kapoor, A.K. (2009) *Demography And Development Dynamics in a Primitive Tribe of Himalayas*. International Book Distributors, Dehradun
12. Riley N.E. and Mc Carthy, J. (2003) *Demography in the Age of the Postmodern*. Cambridge University press. UK. Pages 1-13 and 32-98
13. Sharma A.K. (1979) Demographic transition: A Determinant of Urbanization. *Social Change* 9: 13-17.
14. Srivastava O.S. (1996) *Demographic and Population Studies*. Vikas Publishing House, India
15. Zubrow E.B.W. (1976) *Demographic anthropology. Quantitative approaches*. University of New Mexico Press, Albuquerque.
16. <http://human-nature.com/dm/chap3.html>
17. <http://biography.yourdictionary.com/john-graunt>
18. <http://www.marathon.uwc.edu/geography/demotrans/demtran.htm>

13. Urban Anthropology

Theory

Unit 1 : Emergence of urban anthropology

Introduction, Extension of the anthropological interest in peasants and rural areas, Origins of Cities and Early Sociological Approaches, Urban planning and design

Unit 2: Political economy

Rural-urban migration, kinship in the city, problems that arise from urbanism, poverty and social stratification

Unit 3: Class approach

Culture of Poverty and the Underclass Approach, Comparison between relations function in an urban setting versus function in a rural setting, Race and Class in Urban Ethnography, Urban Dystopia

Unit 4: Urban Inequality and Disasters

Poverty, extended family for urban natives versus migrants, Global Cities and the Production of Space, Community study and urban ecology, Urban Space, Postmodern and Hypermodern City

Unit 5: Global Urban Developments

Urban ethnography research and methodology, Contemporary urban issues: Suburbs, Exurbs and Urban Decline, disciplinary perspectives

Practical

- (i) Visit city life among business community and appreciate the role of culture with politics and economics.
- (ii) Media-popular culture behaviour
- (iii) Photo shoot in any city life, Creating captions and texts relating to urban anthropology findings.

Suggested readings

1. <http://www.oxfordbibliographies.com/>
2. Cities, classes and the social order. Anthony Leeds, Roger Sanjek
3. Childe, V. Gordon. 1950. "Urban Revolution." Town Planning Review
4. Low Reader Part V: "The Postmodern City" in Low pp. 317-377; Dear and Flusty .
5. "Anthropological Fieldwork in Cities", "The anthropology of Cities: Some Methodological Issues".

14. Anthropology of Health

Unit-1: Introduction and Overview of the Field of Anthropology & Health.

A. Health Anthropology within the Context of Anthropology.

- Anthropology and its subfields
- The unique place of Health anthropology in anthropology
- Competing perspectives on the study of anthropology of health.

B. Defining Health and Illness in Cross-Cultural Perspective.

Looking at "health," "illness," and related concepts in Western culture, including sociological "sick role" models,

Some important variations in the process of seeking health care.

Unit - 2: Measuring Health: Morbidity, Mortality, and Epidemiology

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 - 3: Women's Health, Sex, Family Planning, and Maternal-Infant Health.

Reproductive life, child Birth, Family planning adoption, male dominance, Nursing and early nurture, hyper-menstruation and its corollaries. Population variation and its relation to health and disease.

Unit - 4: Chronic Disease, Injury, Stress, and Mental Health

Effect of Chronic Disease in Health, Relationship between mental health, chronic disease, and injury, Understanding Stress and Its Effects Cross-Culturally, Mental Disorders and Related Phenomena, diseases associated with specific sociocultural and environmental contexts: Kuru, osteomalacia, sickle cell anaemia. Adaptations to Health Threats: Genetic Vulnerability and Resistance & Environment, Developmental and Cultural Adaptations to adverse Conditions.

Unit - 5: Variations in Health Care Systems: A Comparative Perspective.

Health promotion and health care delivery programmes. Family welfare programmes. Child health and nutrition programmes. Reproductive health awareness.

Unit - 6: Healing and Healers in Cross-Cultural Perspectives.

A. Shamanism, Magic, and Healing.

Shaman, Magic, Witchcraft and Sorcery,

B. Folk Healers and "Alternative Medicine."

Types of healers and healing, Problems in evaluating efficacy, Sources of dissatisfaction with mainstream medicine.

Unit - 7: Health and Human Rights

Introduction to Human rights, Development of a Human Rights Impact Assessment for the Formulation and Evaluation of Public Health Policies.

Unit - 8: Legal Aspects & Future Prospects for Health

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.

Practical

1. Make a Schedule on Health and Demography.
2. Calculation of Infant Sex ratio, Fertility rate, Total fertility rate, Mortality rate, Birth rate, crude birth rate, crude death rate, Mortality rate, life expectancy, immigration rate, population growth rate.
3. Identification and Characteristics of Various diseases.
4. Case Studies of Traditional and Modern healers.

Suggested Readings

- Rajesh Khanna and A.K. Kapoor. 2007. Ethnic Groups and Health Dimensions. Discovery Publishing House, New Delhi.
- 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.*
- 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.*
- Mann, Jonathon M., et al. (eds.) 1999. Health and Human Rights. New York: Routledge.
- Albrecht, Gary L., Ray Fitzparick, and Susan C. Scrimshaw (eds.) 2000. The Handbook of Social Studies in Health and Medicine, SAGE Publications.
- Bannerman, Robert, J. Burton, and Ch'en Wen-Chieh (eds.) 1983. Traditional Medicine and Health Care Coverage. Geneva: World Health Organization.
- Chen, Lincoln C. Arthur Kleinman, and Norma C. Ware 1994. Health and Social Change in International Perspective. Harvard University Press.
- Coreil, Jeannine and J. Dennis Mull (eds.) 1990. Anthropology and Primary Health Care, Boulder: Westview Press.
- Hahn, Robert A. 1999. Anthropology in Public Health. Bridging Differences in Culture and Society. New York: Oxford University Press.
- Helman, Cecil G. 1994. Culture, Health, and Illness. 3rd ed. Oxford: Butterworth-Heinemann.
- Inhorn, Marcia C. and Peter J. Brown 1997. The Anthropology of Infectious Disease. International health Perspectives. Gordon and Breach Publishers.
- Koop, C. Everett, Clarence E. Pearson, and M. Roy Schwartz (eds.) 2001. Critical Issues in Global Health. San Francisco: Jossey-Bass. A Wiley Company.
- 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.
- Nichter, Mark and Mimi Nichter 1996. Anthropology and International Health. Asian Case Studies. Gordon and Breach Publishers.
- Paul, Benjamin D. (ed.) 1955. Health, Culture, and Community. Case Studies of Public Reactions to Health Programs.

- 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.
- Tsui, Amy O., Judith N. Wasserheit, and John G. Haaga (eds.) 1997. Reproductive Health in Developing Countries. Washington, D.C.: National Academy Press.

Interdisciplinary/Generic elective Course

Credits: Any four papers = Theory +Practical = (4+2)*4 = 24

- | | |
|----------------------------------|---------------------------------------|
| 1) Health science | 11) Forestry |
| 2) Home science | 12) Neuro Science |
| 3) Biotechnology | 13) Physical Education |
| 4) Psychology | 14) Tourism Administration |
| 5) Animation and Visual Graphics | 15) Insurance and Banking |
| 6) Interior Design | 16) Journalism and Mass Communication |
| 7) Economics | 17) BCA |
| 8) Environmental Science | 18) BBA |
| 9) Fashion Design | 19) Hotel Management |
| 10) Food Technology | 20) BBA (Health Care Management) |
| 21) Marine Science | |

Ability enhancement Compulsory Course

Credits: Two Papers = $2 \times 2 = 4$

Ability enhancement elective (skill based) Course

Credits: Any two papers = Theory + Practical = $2 \times 2 = 4$

1. Public health and epidemiology

Unit I: Principles of Epidemiology in Public Health:

Overview of epidemiology methods used in research studies to address disease patterns in community and clinic-based populations, distribution and determinants of health-related states or events in specific populations, and strategies to control health problems

Unit II: Statistical Methods for Health Science

Analysis and interpretation of data including data cleaning, data file construction and management; implementation of analytic strategies appropriate for the type of data, study design and research hypothesis; parametric and nonparametric methods, measures of association, Linear and Logistic regression, Generalized Linear Modeling, and Survival analysis

Unit III: Environmental Health

Effects of biological, chemical, and physical agents in environment on health (water, air, food and land resources); ecological model of population health; current legal framework, policies, and practices associated with environmental health and intended to improve public health

Unit IV: Psychological, Behavioural, and Social Issues in Public Health

Cultural, social, behavioural, psychological and economic factors that influence health and illness; behavioural science theory and methods to understanding and resolving public health problems; assess knowledge, attitudes, behaviours towards disease and patient compliance to treatment.

Unit V: Management of Health Care Program and Service Organizations

Techniques and procedures for monitoring achievement of a program's objectives, generating evidence of program effectiveness, assessing impacts in public health settings; evaluate framework that leads to evidence-based decision-making in public health. Organizational principles and practices including organizational theory, managerial role,

managing groups, work design, and organization design at primary, secondary, and tertiary levels of care

Unit VI: Epidemiology of disease

Contemporary methods for surveillance, assessment, prevention, and control of infectious and chronic diseases, disabilities, HIV/AIDS; understanding etiology; determining change in trend over time; implementation of control measures

Practical

1. Draw appropriate inferences from provided epidemiologic data through statistical analysis
2. Assesses the health status of populations and their related determinants
3. Analyzes information relevant to specific public health policy issues
4. Development of health promotion model for health problem

Suggested reading

1. Gordis L. (2004). Epidemiology. Third edition. Philadelphia: Elsevier Saunders.
2. Remington PL, Brownson RC, and Wegner MV. (2010). Chronic Disease Epidemiology and Control. American Public Health Association.
3. Pagano M and Gauvreau K. (2000). Principles of Biostatistics. Belmont, CA: Wadsworth.
4. Turnock B. (2011). Public health. Jones & Bartlett Publishers.
5. Edberg M. (2013). Essentials of Health Behavior. Social and Behavioral Theory in Public Health. Second Edition, Jones and Bartlett Publishers.
6. Griffith JR and White KR. (2010). The Well-Managed Healthcare Organization. Health Administration Press: Chicago, IL.
7. Kovner AR, McAlearney AS, Neuhauser D. (2013). Health Services Management: Cases, Readings, and Commentary. 10th Ed. Chicago, IL: Health Administration Press.
8. Lee LM. (2010). Principles and Practice of Public Health Surveillance. Oxford University Press
9. Turnock B. (2011). Essentials of Public Health. Jones & Bartlett Publishers
10. Merson M, Black RE, Mills A. (2006). International Public Health: Diseases, Programs, Systems and Policies. Jones & Bartlett Learning.
11. Aschengrau A and Seage GR. (2008). Essentials of Epidemiology in Public Health. Boston, Massachusetts.

2. Business and Corporate Anthropology

Theory

1. Business and corporate Anthropology: History and subject matter
2. Applied anthropology in industry, application of the ethnography in business management
3. Anthropology and consumer behaviour,
4. Globalization, international trade and anthropology
5. Techniques for Conducting Fieldwork for Business Organizations

Practical:

1. Visit a corporate sector and write a short report Case study
2. Study of interaction pattern in corporate sector with reference to ethnicity
3. Make a schedule on the structure of the corporate/MNC
4. Make a brief report only on one dimension of the corporate sector and give your assessment

Suggested Readings:

1. Jordan, Ann T. Business Anthropology. Waveland Press, Long Grove, Illinois.
2. Whyte, W.F. 1948 Incentives for Productivity: The Case of the Bundy Tubing Company Applied Anthropology 7(2):1-16
3. Gardner, Burleigh B. 1978 Doing Business with Management. In Applied Anthropology in America, Elizabeth M. Eddy and William Partridge (Eds.).New York: Columbia University Press. Pp.245- 260.
4. Handbook of Anthropology in Business by [Rita M Denny](#).
5. Advanced reading in Business Anthropology edited by Robert Guang Tian, Daming Zhu, Alfons van Marrewijk.

3. Media Anthropology

Unit 1: Theoretical Foundations: Introduction to Media Anthropology; Intellectual Antecedents

Unit 2: Audiences, Consumption and Identity Formation: The Social and Material Life of Cinema; Television and the Cultural Politics of Nation; Gender and Subjectivity; the Nation and Temporality; Media as Material Objects.

Unit 3: The Cultural Work of Mass Media Production: Producing “Bollywood”.

Unit 4: The Social Sites of Film and TV Production; the Exigencies of Commercial Filmmaking; the Constraints of Public Television Production.

Unit 5: Producing Reality - Journalism and Advertising; News as Social Practice; the Local and the Global in Advertising.

Unit 6: Small Media: Materiality, Circulation, Everyday Life & Social Transformations; Indigenous Media and Cultural Activism; The Social and Material Lives of Cell Phones; Media as Social Infrastructure - The Case of Facebook; Learning from New Media; The Possibilities & Constraints of YouTube

Practical

1. Visit to Mass Media Company and submit a report on any one dimension.
2. Making a schedule and testing the same in the field with focus on either cinema or television
3. Describe the components of mass media in its different parts
4. Submit a report on the behavioural pattern of media people.

Suggested readings

Rothenbuhler, Eric W; Coman, Mihai. Media anthropology. 2005. California, Sage.

4. Tourism Anthropology

Unit I: Tourism- aspects and prospects, anthropological issues and theoretical concerns, tourist as ethnographer; pilgrimage and Authenticity Issues

Unit II: Interconnections between tourism history and the rise of the socio-cultural study of tourism including temporary migration, colonial exploration, pilgrimage, visiting relatives, imagined and remembered journeys, and tourism

Unit III: understand the implications of tourism as a major mechanism of cross-cultural interaction; role of symbolism, semiotics, and the imagination in tourism; tourism and the commodification of culture or cultural degradation

Unit IV: understand the global and local political economy of contemporary tourism, particularly in relation to international development; explore dynamic relationships between heritage-making enterprises, revival and preservation projects, the international flow of capital; role of museums and other branches of the cultural industries" (including music, art, and food) in tourism economies; tourism and global mobility; Ecotourism and sustainable development

Unit V: New Directions in the Anthropology of Tourism: Globalization, Tourism and Terrorism; applied aspects of anthropology in tourism development and planning.

Practical

1. Visit a place, identify a population and write a short report Case study
2. Make a brief report only on one dimension of the tourism sector and give your assessment

Suggested Readings

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 Hawai Press.
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