

**FOUR YEAR UNDERGRADUATE PROGRAMME IN ANTHROPOLOGY
GAUHATI UNIVERSITY**

FIRST SEMESTER

Paper Code: ANT 010104

Course I: FOUNDATIONS OF ANTHROPOLOGY

Objectives:

This course:

1. Gives an understanding of the basic concepts in Anthropology and all its sub-branches. Students will learn about the meaning, scope and development of the subject and its relationship with other disciplines.
2. Introduces concepts of Society and Culture; and their role in shaping human lives.
3. Provides an understanding of the position of human in relation to other organisms and the distinctiveness and diversity of human beings in time and space.
4. Provides a preliminary understanding of the prehistoric and archaeological background of human culture in the evolutionary context.

Course level: 100-199

Prerequisite: Class XII in any Science, Arts and Humanities

Graduate Attributes/Outcomes

1. This course will raise awareness about ethnocentrism and cultural relativism as unique aspects of the discipline. Students will understand anthropologically how and why social and cultural differences exist in the world and how such differences help us to solve problems in everyday life.
2. This will provide an understanding of the essence of Biological Anthropology with respect to evolution and variation.
3. Students will acquaint themselves with the prehistoric archaeological dimension of human society and its evolutionary context.

Total Credits: 4

Theory – 3, Practical -1

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory – 45, Practical - 15)

Number of non-contact classes: 15 (Library studies, Assignments)

Course Content

Unit I: (i) Meaning, scope and development of Anthropology. Anthropological perspective and orientation: Ethnocentrism and Relativism. Relationship of Anthropology with other disciplines - Social Science, Behavioural Science, Life Science, Medical Science, and Earth Sciences.

(ii) Main branches of Anthropology, scope and relevance: Socio-Cultural Anthropology, Biological Anthropology, Archaeological Anthropology and Linguistic Anthropology.

Unit II: (i) Concept and Nature of Society: Social Institutions (Family, Kinship and Marriage); Social Stratification.

(ii) Concept and Definition of Culture: Culture trait, Culture complex and Culture area. Tangible and Intangible Culture; Culture and Civilization. Culture change: Forces and Factors of Culture change.

Unit III: (i) Man's place in Animal Kingdom, Classification and characteristics of living primates, Human and Non – Human primates – Comparative Anatomy and Behaviour.

(ii) Evolutionary stages of man in the light of fossil evidences: Ardipithecus, Australopithecus, Homo Habilis, Homo Erectus, Archaic man and Neanderthal, modern man.

(iii) Human skeletal morphology: Cranial osteology, Post-Cranial osteology and dentition.

UNIT IV: (i) Definition and scope of Archaeological Anthropology: Ethnoarchaeology and New Archaeology, Relation with other disciplines. Division of Prehistoric Period: Stone Age and Metal Age; Lower Palaeolithic, Middle Palaeolithic and Upper Palaeolithic, Mesolithic, Neolithic (Characteristics features of the period in general).

(ii) Geological Time Scale, Geochronology of Pleistocene Epoch, Plio-Pleistocene Boundary, Glacial and Inter-Glacial, Pluvial and Inter Pluvial, Different Types of Geo-climatic Events.

UNIT V: Practical

1. Osteology

Drawing, Description and Identification of the following Bones: Cranial bones -Frontal, Parietal, Occipital, Maxilla, Zygomatic, Mandible, Sphenoid; Long bones - Humerus, Radius, Ulna, Femur, Tibia, Fibula; Scapula, Clavicle, Pelvis, Sternum, Vertebral Column. Sides to be identified for paired bones.

2. Osteometry: Measurement of long bones

Femur: Absolute length, Physiological length, Middle shaft diameter

Humerus: Maximum Length, Bi-Condylar breadth, Least circumference of shaft, Caliber index

Ulna: Maximum length, Physiological length, Least circumference of the shaft, Breadth of Olecranon

Radius: Maximum length, Physiological length, Least circumference of shaft, Breadth of Olecranon

Tibia: Maximum length, Physiological length, Proximal epiphysial (Bi-condylar) breadth, Minimum transverse diameter at the middle.

Fibula: Maximum length, Upper epiphysial breadth, Lower epiphysial breath and Caliber index.

Suggested Readings:

1. Beattie, J. (1964). Other Cultures: Aims, Methods and Achievements in Social Anthropology. Routledge.
2. Davis, K. (1949). Human society. Macmillan. New York.
3. Ember C. R. et al. (2011). Anthropology. Dorling Kindersley. New Delhi.
4. Fox, Robbin. (1967). Kinship and Marriage. Cambridge University Press. Cambridge.
5. Harris, Marvin. (1997). Cultural Anthropology. Pearson. London.
6. Haviland, W. A., Prins, H. E., & McBride, B. & Walrath, D. (2014). Anthropology: The human challenge (14th edition). Cengage Learning.
7. Herskovits, Melville J.(1972). Cultural Relativism; Perspectives in Cultural Pluralism. Random House, New York.
8. Kroeber, A. L. (1948). Anthropology. Oxford & IBH, New Delhi.
9. Levi-Strauss, Claude. (1969). The Elementary Structures of Kinship. Beacon Press.
10. Mair, Lucy. (1965). An Introduction to Social Anthropology. Oxford University Press.
11. Das, B.M. (1980). Outlines of Physical Anthropology. Kitab Mahal Publication.
12. Gebo L. Daniel (2014). Primate Comparative Anatomy, John Hopkins University, Baltimore, USA.
13. Groves C. (2001). Primate taxonomy. Smithsonian, USA.
14. Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). Introduction to Physical Anthropology. Wadsworth Publ., USA.
15. Rastogi, S. and Shukla, B.R.K (2003). Laboratory Manuals of Physical Anthropology. Bharat Book Centre, Lucknow, India
16. Stanford C., Allen J.S. and Anton S.C. (2010). Exploring Biological Anthropology. The Essentials. Prentice Hall Publ, USA.
17. Singh I. P. and Bhasin M.K. (1989). Anthropometry: A Laboratory Manual on Biological Anthropology. Kamla-Raj Enterprises, Chawri Bazar, Delhi.
18. Das, B.M. & Deka, R.K. (2013). Physical Anthropology Practical. Kitab Mahal Publication.
19. Bhattacharya, D. K. (1987). Prehistoric archaeology. Hindustan Publishing Corporation. New Delhi.
20. Heizer, R. F., & Hole, F. (1973). An Introduction to Prehistoric Archaeology. Holt, Rinehart & Winston, New York.
21. Fagan, B. M. (1983). People of the Earth: An Introduction to World Prehistory. Little Brown & Company. Boston.
22. V. Rami Reddy (1987). Elements of Prehistory. Mittal Publication. New Delhi.

SECOND SEMESTER

Paper Code: ANT 020104

Course II: FUNDAMENTALS OF ANTHROPOLOGY

Course Objectives

This course will focus on:

1. The basic concepts and methods of Socio-Cultural Anthropology and their changes with time.
2. The nature, meaning and evolution of economic, political and religious institutions.
3. The evolutionary process and the various aspects of variations.
4. The methods and techniques of Prehistoric Archaeology, concept of prehistoric chronology and practical understanding of tools.

Course level: 100-199

Prerequisite: Students have to clear Course I of Anthropology FYUGP

Graduate Attributes/Outcomes

Students will be able to:

1. Learn the approaches to understand culture and society and critically assess the functioning of economic, political, and religious institutions.
2. Analyze the changing ideas of evolutionary theories and understand the mechanisms of evolution and variation.
3. Acquaint themselves with the basic methods and techniques of studying prehistoric archaeology and its application in the field study. Students will also have hands-on training in identification and drawing of tools of prehistoric period.

Total Credits: 4 (Theory: 3, Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory: 45, Practical: 15)

Number of non-contact classes: 15

Course Content

Unit I: (i) Approaches to study of Culture and Society: Evolutionism, Diffusionism, Historical Particularism and Functionalism.

- (ii) Economic organisation- reciprocity, redistribution and market exchange. Political organisation- types; Social control and Law. Religion: Functions of Religion, Supernaturalism, Magic, Witchcraft, Religious Specialists.

Unit II: (i) Theories of evolution – Lamarckism, Neo Lamarckism, Darwinism, Neo

- Darwinism, Synthetic Theory, Shifting balance theory, Punctuated equilibrium theory and Coalescent theory
- (ii) Biological basis of inheritance – cell, cell division, chromosome, Human Karyotype, Gene, DNA, RNA
 - (iii) Factors of evolution – natural selection, mutation, genetic drift, geneflow
 - (iv) Assessing Human Genetic diversity – Red cell markers (ABO, Rh), DNA markers (SNPs, VNTR, CNV, mt DNA, Y chromosome), haplotypes and haplogroups, epigenetics.

- Unit III:**
- (i) Methods of studying Archaeological Anthropology: Archaeological, Paleontological and Geological methods of classification, Methods of Field Archaeology, Basic Idea of Exploration and Excavation, Concept of Site, Artifact, Culture and Industry. Concept of Tools and Pottery, Concept of Ethno-Archaeology, New Archaeology and Cultural Resource Management (CRM).
 - (ii) Methods of Estimation of Time and Reconstruction of the Past. Absolute Dating Methods (Radio Carbon, Potassium Argon, Thermoluminescence, Dendrochronology), Relative Dating Methods (Stratigraphy, Typology, Patination, Palynology, Fluorine Analysis).

- Unit IV: Practical**
- Museum visit and preparation of a report: the report should include relevance of museum in Anthropology, arrangement of specimens in ethnographic museum, cleaning, treatment and preservation of museum specimens.

Suggested Readings:

1. Belshaw, C.S. (1965). *Traditional Exchange and Modern Markets*. US: Prentice Hall.
2. Bhattacharya, D.K. (1987). *Prehistoric Archaeology*. New Delhi: Hindustan Publishing Corporation.
3. Buettner-Janusch, J. (1966). *Origins of Man: Physical Anthropology*. New York: John Wiley & Sons, Inc.
4. Conroy, G.C. (1997). *Reconstructing Human Origins: A Modern Synthesis*. New York: W. W. Norton & Company.
5. Dalton, George. (1976). *Tribal and Peasant Economies: Readings in Economic Anthropology*. US: University of Texas.
6. Durkheim, E. (1912). *The Elementary Forms of Religious Life*. New York: Free Press.
7. Fagan, B.M. (1983). *People of Earth: An Introduction*. Boston: Little, Brown & amp; Company.
8. Frazer, J.G. (1911). *The Golden Bough- A Study in Magic and Religion*. London: The Macmillan Press.
9. Gardner, A. & Davies T. (2012). *Human Genetics*. Delhi: Viva Books Pvt Ltd.
10. Gennep, A. V. (1960). *The Rites of Passage*. Chicago: University of Chicago Press.
11. Hann, C. & Hart, K. (2011). *Economic Anthropology: History, Ethnography and Critique*. Cambridge: Polity Press.
12. Haviland, W.A. (1990). *Cultural Anthropology (9th Edition)*. U.S.A: Harcourt Brace College Publishers.
13. Herskovits, M.J. (1953). *Economic Anthropology*. New York: W.W. Norton & Co.
14. Hole, F., & Heizer, R. F. (1973). *An introduction to prehistoric archeology*. New York: Holt, Rinehart and Winston.

15. Kothari, M.L., Mehta, L., & Roy Choudhury, S.S. (2009). *Essentials of Human Genetics*. Hyderabad: Universities Press (India) Pvt Ltd.
16. Lewellen, Ted C. (1992). *Political Anthropology: An Introduction*. Westport, CT: Bergin & Garvey.
17. Majumdar, D.N. & T.N. Madan. (2018). *An Introduction to Social Anthropology*. New Delhi: Mayur Publishers.
18. Malinowski, B. (1954). *Magic, Science and Religion*. New York: The Free Press.
19. Nystrom, P. and Ashmore, P. (2011). *The Life of Primates*. New Delhi: PHI Learning Private Limited.
20. Pals, D. L. (2014). *Nine Theories of Religion*. Oxford: Oxford University Press.
21. Reddy, V. R., (1987). *Elements of Prehistory*. New Delhi: Mittal Publication.
22. Redfield, R. (1965). *Peasant Society and Culture*. Chicago: Chicago University Press.
23. Sankalia, H.D. (1964). *Stone Age Tools*. Poona: Deccan College.
24. Seth, P. K., and Seth, S. (1986). *The Primates*. New Delhi: Northern Book Centre.
25. Singh, I. P. and Bhasin, M.K. (1989). *Anthropometry: A Laboratory Manual on Biological Anthropology*. Delhi: Kamla-Raj Enterprises.
26. Stanford, C., Allen, J.S. & Anton, S.C. (2012). *Biological Anthropology: The Natural History of Mankind*. New Delhi: PHI Learning Private Limited.
27. Swindler, D. R. (2009). *Introduction to the Primates*. New Delhi: Overseas Press India Pvt. Ltd.
28. Tax, S. (Ed.). (1977). *Horizons of Anthropology*. Chicago: Aldine Publishing House.
29. Tylor, E. B. (2016) [1871]. *Primitive Culture (Volume I & II)*. Mineola, New York: Dover Publications, Inc.
30. Wallace, A.F.C., (1966). *Religion: An Anthropological View*, New York: Random House.

THIRD SEMESTER

Paper Code: ANT 030104

Course III – FIELDWORK TRADITION AND METHODOLOGY

Course Objectives

This course will focus on:

1. Enable to learn the process of undertaking an effective ethnographic fieldwork as a key strategy in Anthropology.
2. Help in learning the field methods and techniques of conducting ethical anthropological research.

Course level: 200-299

Prerequisite: Students have to clear Course I and II of Anthropology FYUGP

Graduate Attributes/Outcomes

Students will be to:

1. Able to formulate research problem and collect requisite empirical data in the field.
2. Able to conduct fieldwork in a variety of settings in an ethical manner.

Total Credits: 4 (Theory Credit: 2, Practical Credit: 2)

Total Marks: 100

Theory- 50, Practical – 50

Theory (End Term): 40 (80% of 50)

Internal / Sessional Examination: 10 (20% of 50)

Practical (End Term): 40 (80% of 50)

Internal / Sessional Examination: 10 (20% of 50)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory: 30, Practical: 30)

Number of non-contact classes: 15 (Field work, Library studies)

Course Content

Unit I: History of Anthropological field work in the 19th century. Early systematic fieldwork- Torres Strait Expedition. Founding fathers of Fieldwork- Bronislaw Malinowski, A.R. Radcliffe -Brown.

Unit II: Types of Research Design- Exploratory, Descriptive and Experimental. Formulation of research problem, hypothesis, review of literature, conceptual framework and bibliography.

Unit III: Fieldwork Techniques and Methods- Observation, Interview, Survey schedule, Case study, Focus Group Discussion, Genealogical method.

Unit IV: Basic Statistics: Variables, Tabulation and Presentation of data; Descriptive

Statistics: Measures of Central Tendency (Mean, Median, Mode), Measures of Variation (Standard Deviation, Coefficient of Variation).

Unit V: Practical

Students will undertake field work in a nearby setting for five days. During the period they will study the socio-cultural aspects and material culture of the people and submit a field report.

Suggested Readings:

1. Basu, M.N. (1962). *Field methods in Anthropology and other Social Sciences*. Virginia: University of Virginia.
2. Brown, N., McIlwraith, T., & González, L.T. (2020). *Perspectives: An Open Introduction to Cultural Anthropology*. AAA, Arlington.
3. Emerson, R.M., Fretz, R.I. & Shaw, L.L. (1995). *Writing Ethnographic Fieldnotes*. Chicago: University of Chicago Press.
4. Kothari, C. R. (1985). *Research Methodology – Methods and Techniques*. New Delhi: Wiley Eastern Limited.
5. Pillai, R.S.N., & Bagavathi, V. (2003). *Practical Statistics*. New Delhi: S. Chand & Company.
6. Royal Anthropological Institute. (1951). *Notes and Queries in Anthropology* (6th ed.) London: Routledge and Kegan Paul Ltd.
7. Srivastava, V. K. (2004). *Methodology and Fieldwork*. New Delhi: Oxford University Press.

E-Content:

E-Gyankosh. (n.d.). Field work Traditions in Anthropology.

<https://www.egyankosh.ac.in/bitstream/123456789/76508/1/Unit-4.pdf>

E PG Pathshala. (n.d.). Research Methods and Fieldwork Tradition in Anthropology.

Information and Library Network (INFLIBNET) Centre:

https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000001AN/P001765/M023725/ET/1507179808Quadrant1.pdf

FOURTH SEMESTER

Paper Code: ANT 040104

Course IV – PHYSICAL ANTHROPOLOGY (Elective I): BIOLOGICAL DIVERSITY IN HUMAN POPULATIONS

Course Objectives

This course will focus on:

1. It will provide an understanding of how to assess biological diversity in human population studies.

Course Level: 200-299

Prerequisite: Students have to clear Course III of Anthropology FYUGP

Graduate Attributes/Outcomes

Students will be able to:

1. Assess the biological diversity in human populations on the basis of genetic markers.
2. Learn the classical approaches used in classifying mankind.

Total Credits: 4 (Theory: 3; Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory:45, Practical: 15)

Number of non-contact classes: 15

Course Content

Theory

Unit I: Concept of Biological Variability, Sources of Genetic Variation, Interpretation of Human Variation, Genetic Polymorphism (Serological, Biochemical and DNA markers).

Unit II: Classical approaches of classifying human population: Racial groups of mankind and racial criteria. 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:** Genetic diversity among Indian Population. Racial elements in North East India with special reference to Assam.
- Unit V:** Recent understanding of human biological categories in the context of human genomic research.
- Unit VI:** Demographic Anthropology; Sources of Demographic Data, Demographic Processes, Demographic profile of Indian populations and its growth structure with special reference to North East India

Practical

- Somatometry:** Head form, Hair form and Colour, Facial form, Eye form and Colour, Nose form, Skin colour, Supra-orbital ridge, Prognathism (facial alveolar), Epicanthic fold, Lip form, Ear lobe.
- Somatometry:** Maximum head length, Maximum head breadth, Frontal breadth (Maximum & Minimum), Maximum Bizygomatic breadth, Bigonial Breadth, Head Circumferences, Physiognomic Facial height, Morphological Facial Height, Physiognomic Upper Facial Height, Morphological Upper Facial Height, Nasal Height, Nasal Length, Nasal Breadth, Stature, Sitting height, Body Weight, Total upper extremity length, Total lower extremity length.

Suggested Readings:

- Baker, P.T. & Weiner, J.S. (ed.). (1996). *The Biology of Human Adaptability*. Oxford & New York: Oxford University Press.
- Bhende, A.A. & Kanitkar, T. (2006). *Principles of Population Studies*. Mumbai: Himalayan Publishing House.
- Bogin, B. (1999). *Pattern of Human Growth* (2nd ed.) England: Cambridge University Press.
- Cameron, N. & Bogin, B. (2012). *Human Growth and Development* (2nd ed.). Amsterdam: Academic Press Elsevier.
- Eckhardt, R.B. (1979). *The Study of Human Evolution*. USA: McGraw Hill Book Company.
- Frisancho, R. (1993). *Human Adaptation and Accommodation*. USA: University of Michigan Press
- Harrison, G.A., Tanner, J.M., Pilbeam, D.R., & Baker, P.T. (1988) *Human Biology*. Oxford: Oxford University Press.
- Jurmain, R., Kilgore, L., Trevathan, W.R. & Ciochon, R. (2010). *Introduction to Physical Anthropology*. USA: Wadsworth Publishing.
- Kapoor, A.K. & Kapoor, S. (Ed). (1995). *Biology of Highlanders*. Jammu: Vinod Publisher & Distributor.
- Kapoor, A.K. & Kapoor, S. (Ed). (2004). *India's Elderly-A Multidisciplinary Dimension*. New Delhi: Mittal Publication.
- Klepinger, L.L. (2006). *Fundamentals of Forensic Anthropology*. New Jersey: John Wiley & Sons.
- Malina, R. M., Bouchard, C. & Bar-Or, O. (2004) *Growth, Maturity and Physical activity*. UK: Human Kinetics.
- Mukherji, D., Mukherjee, D.P., Bharati, P. & Mukhopadhyay, A. (2018). *Laboratory Manual for Biological Anthropology* (2nd ed.). Kolkata: Scholar Publication.
- Stanford, C., Allen, S.J. & Anton, C.S. (2013): *Biological Anthropology* (3rd ed.). USA: Pearson.

Paper Code: ANT 040204

Course IV: PHYSICAL ANTHROPOLOGY (Elective II): FUNDAMENTALS OF HUMAN ORIGIN AND EVOLUTION

Course Objectives

This course will focus on:

1. To understand primate evolution with reference to the different geological epochs.
2. An understanding of stages of human evolutionary development with an emphasis on skeletal changes as evident from the fossil finds.

Course level: 200-299

Prerequisite: Students have to clear Course III of Anthropology FYUGP

Graduate Attributes/Outcomes

1. Students will learn about primate evolution with reference to the different geological epochs.
2. Students will learn about hominin evolutionary developmental stages based on skeletal evidences.

Total Credits: 4 (Theory: 3; Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory: 45, Practical: 15)

Number of non-contact classes: 15

Course Content

Theory

Unit I: Primate origins and evolution with special reference to Paleocene, Eocene, Oligocene and Miocene: Plesiadiformes, Adapoidea, Omomyoidea, Anaptomorphidae, Parapithecus, Propliopithecus, Limnopithecus, Proconsul, Dryopithecus, Sivapithecus, Ramapithecus and Gigantopithecus

Unit II: Human Origin on the basis of interpretation of fossil evidences: **1.** Ardipithecus: Sahelanthropus tchadensis, Orrorin tugenensis, Ardipithecus ramidus. **2.** Australopithecines: distribution, features and their phylogenetic relationships. **3.** The emergence of genus Homo: Homo habilis and Homo erectus, Narmada Man **4.** The emergence of Archaic Homo sapiens and Neanderthals.

Unit III: Origin of modern humans (*Homo sapiens sapiens*) and their distribution and features: Cro Magnon, Grimaldi and Chancelade.

Unit IV: Evolutionary Change in Human Skeleton with special reference to Skull, dentition, Vertebral Column, Pelvis, Femur and Foot.

Practical:

3. Craniometric Measurements (Skull and Mandible)

Students should be trained to identify landmarks on the skull, take accurate measurements by following standards techniques.

I. Linear measurements:

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
Bi-maxillary breadth	Outer bi-orbital breadth
Inner bi-orbital breadth	Greatest occipital breadth
Glabella-inion length	Nasion-inion length
Nasion-basion length	Nasion-prosthion length

II. Curvilinear or arc measurements:

Frontal arc	Parietal arc
Occipital arc	Sagittal cranial arc
Horizontal circumference of head	

III. Chord Measurements:

Frontal chord	Parietal chord
Occipital chord	

IV. Angular measurements:

Facial profile angle	Metopic angle
Alveolar profile angle	Nasal profile angle

V. Measurements on Mandible:

Bi- condylar breadth	Bi-gonial breadth
Length of the mandible	Height of ramus

Suggested Readings:

1. Buettner-Janusch, J. (1966). *Origins of Man: Physical Anthropology*. New York, London, Sydney: John Wiley & Sons, Inc.
2. Conroy, G.C. (1997). *Reconstructing Human Origins: A Modern Synthesis*. New York, London: W. W. Norton & Company.
3. Lewin, R. (1998). *Principles of Human Evolution*. New Jersey: Blackwell Science.
4. Mukherji, D., Mukherjee, D.P., Bharati P. & Mukhopadhyay, A. (2018). *Laboratory Manual for Biological Anthropology (2nd Ed.)*. Kolkata: Scholar Publication.
5. Nystrom, P. and Ashmore, P. (2011). *The Life of Primates*. New Delhi: PHI Learning Private Limited.
6. Seth, P. K. & Seth S. (1986). *The Primates*. New Delhi: Northern Book Centre.

7. Singh, I. P. & Bhasin, M.K. (1989). *Anthropometry: A Laboratory Manual on Biological Anthropology*. Delhi: Kamla-Raj Enterprises.
8. Standford, C., Allen, J.S. & Anton, S.C. (2012). *Biological Anthropology: The Natural History of Mankind*. New Delhi: PHI Learning Private Limited.
9. Swindler, D. R. (2009). *Introduction to the Primates*. New Delhi: Overseas Press India Pvt. Ltd.
10. Tax, S. (Ed.). (1977). *Horizons of Anthropology*. Chicago: Aldine Publishing House.

Paper Code: ANT 040304

Course V: Social and Cultural Anthropology: INDIAN SOCIETY AND CULTURE – I

Course Objectives

This course will focus on:

1. To impart knowledge of Indian Societies-tribes, villages and caste situations of India.

Course Level: 200-299

Prerequisite: Students have to clear Course III of Anthropology FYUGP

Graduate Attributes/Outcomes

Students will be able to:

1. Students will be acquainted with the traditional Indian social system, the diverse settings and problems in India.
2. Students will learn about the problems, prospects, development, and government policies for tribes and villages, and about the concept and issues regarding caste system in India.

Total Credits: 4 (Theory)

Total Marks: 100

Theory (End Term)- 80 (80% of 100)

Internal: 20 (20% of 100)

- Sessional Examination: 10 (50% of 20)
- Assignment: 10 (50% of 20)

Number of required classes: 75

Number of contact classes/hours: 60

Number of non-contact classes: 15

Course Content

Unit I: The Structure and Nature of traditional Indian social system: Varnashram, Purushartha, Karma, Rina, and Rebirth. Ethnic and Linguistic elements in Indian population. Religious minorities. Unity and Diversity in India, Problems of Nation building.

Unit II: Anthropological Concept of Tribe; Problems of nomenclature, definition and classification of Tribe. Problems of tribal people in India. Role of governmental and non-governmental organizations in tribal development. The concept of Particularly Vulnerable Tribal Groups (PVTGs). Constitutional safeguards for Scheduled Tribes.

Unit III: Village community: Significance of village study in India; Changes in the village community. Impact of globalization on Indian villages.

Unit IV: Caste system in India- Structure and characteristics, Varna and caste, Jajmani system. Dominant caste, Caste mobility, Future of caste system. The scheduled caste in India, Constitutional provisions for Scheduled Caste.

Assignment:

Students are to study and make a summary of any one monograph/book from the following:

1. *Fürer-Haimendorf, Christoph von. (1980). A Himalayan Tribe: From Cattle to Cash. Berkeley, California: University of California Press.*
2. *Cantlie, Audrey. (1984). The Assamese: Religion, Caste and Sect in an Indian Village. Centre of South Asian Studies, School of Oriental and African Studies. University of London.*
3. *Majumdar, D.N., (1981). A Study of Culture Change in Two Garo Villages of Meghalaya. Guwahati: Gauhati University Press.*
4. *Srinivas, M. N. (1952). Religion and Society among the Coorgs of South India. Bombay: Asia Publishing House.*

Suggested readings:

1. Bernard, CS. (2000). *India: The Social Anthropology of Civilization.* Delhi: Oxford University Press.
2. Beteille, A. (1988). *Essays in Comparative Sociology.* New Delhi: Oxford Univ. Press.
3. Beteille, A. (2012). *Caste, Class and Power.* New Delhi: Oxford Univ. Press.
4. Bose, N.K. (1975). *The structure of Hindu Society.* New Delhi: Sangam Books.
5. Dumont, L. (1981). *Homo Hierarchicus.* US : Chicago University Press.
6. Dube, S.C. (1998). *India's changing villages.* UK: Routledge, Taylor & Francis Group.
7. Hasnain, Nadeem. (2022). *Tribal India.* New Delhi: Palaka Prakashan.
8. Hasnain, Nadeem. (2022). *Indian Anthropology.* New Delhi: Palaka Prakashan.
9. Mandelbaum, D.G. (1972). *Society in India (2 Vol.).* Bombay: Popular.
10. Shanin, T. (1987). *Peasants and Peasantry.* New York: Blackwell.
11. Singh, Yogendra. (2014). *Social Stratification and Change in India,* New Delhi: Manohar Publisher and Distributors.
12. Srinivas, M.N. (2002). *Caste in Modern India and Other Essays,* Bombay: MPP.
13. Srinivas, M.N. (2004). *Collected Essays,* Delhi: Oxford Univ. Press.
14. Vidyarthi, L.P. and Rai, B.K. (2014). *The Tribal Culture of India.* New Delhi: Concept Publishing.

Paper Code: ANT 040404

Course VI: PREHISTORIC ARCHAEOLOGY:ARCHAEOLOGICAL ANTHROPOLOGY

Course Objectives

This course will focus on:

1. Providing an understanding of the evolution of tool typology and tool making technology of prehistoric period.

Course level: 200-299

Prerequisite: Students have to clear Course III of Anthropology FYUGP

Graduate Attributes/Outcomes

1. Students will be acquainted with how the early man invented & gradually developed technology to prepare different types of tools for interaction and adaptation to environment.
2. Students will learn through experiential learning, how archaeological sites and cultural resources / materials are preserved.

Total Credits: 4 (Theory: 3, Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory: 45, Practical: 15)

Number of non-contact classes: 15

Course Content

Unit 1: Methods of Exploration: Exploration kit, surface exploration, Methods of Excavation, Test pit, Quadrant, bulk, Layer

Unit II: Tool Typology and Raw materials (Paleolithic, Mesolithic and Neolithic)

Unit III: Tool Technology (Block-on – anvil Technique, Stone Hammer Technique, Cylinder Hammer technique, Clactonian Technique, Levalloisian Technique, Pressure Flaking Technique, Grinding and polishing Technique).

Unit IV: Practical-
Tool Typology and Technology, Identification, drawing and description of tools of Lower Palaeolithic (3), Middle Palaeolithic (3), Upper Palaeolithic, (4), Mesolithic (3) and Neolithic (2).

Suggested Readings:

1. Bhattacharya, D.K. (1997). *Prehistoric Archaeology (A Comparative Study of Human Succession)*. India: Hindustan Publishing Corporation.
2. Burkitt, M.C. (1925). *Prehistory*. California: University of California Press.
3. Dancey, S.W. (1981). *Archaeological Field Methods: An Introduction*. Minneapolis: Burgess Publishing Company
4. Hole, F. & Heizer, R.F. (1973). *An Introduction to Prehistoric Archaeology*. New York: Holt Rinehart and Winston.
5. Reddy, V.R. (1987). *Elements of Prehistory*. New Delhi: Mittal Publication.
6. Sankalia, H. D. (1964). *Stone Age Tools their Techniques, Names and Probable Functions*. Poona: Deccan College Research Institute.

Paper Code: ANT 040504

Course VII: ANTHROPOLOGY IN PRACTICE

Course Objectives

1. To impart knowledge about the applied aspects of Anthropology

Course level: 200-299

Prerequisite: Students have to clear Course III of Anthropology FYUGP

Graduate Attributes/ Outcomes

1. Students will gain knowledge about the applications of Anthropology to human society for welfare, planning and policy making.
2. This will help in learning the applications of anthropometry in various fields.
3. The students will learn about the medico-legal problems.

Total Credits: 4 (Theory)

Total Marks: 100

Theory (End Term): 80 (80% of 100)

Internal / Sessional Examination: 20 (20% of 100)

Number of required classes: 75

Number of contact classes/hours: 60

Number of non-contact classes: 15

Course Content

Unit I: History, scope and aims of Applied Anthropology, Action and Development Anthropology. Social Impact Assessment, Participatory Action Research, Rapid Assessment Procedure (RAP), Participatory Rural Appraisal (PRA), Rapid Rural Appraisal (RRA).

- UnitII:** Future Dynamics in Anthropology: Trends in Applied Anthropology – Medical Anthropology, Media and Communication, Anthropology of Tourism, Anthropology in Census, Designing and Fashion, Visual Anthropology.
- UnitIII:** Anthropometry and operational designing: its relationship with human factors; Kin-anthropometry: Human physique and body composition in gross function and performance.
- UnitIV:** Medico-legal aspects of genetics: Paternity determination on the basis of serological and morphological traits.

Suggested readings:

1. Gardner, Katty and Lewis, David. (2015). *Anthropology and Development: Challenges for the Twenty First Century*. London: Pluto Press.
2. Hockings, Paul. (2003). *Principles of Visual Anthropology*. New York: De Gruyter Mouton.
3. James A. P. Day. (1986). *Perspectives in Kin anthropometry*. Virginia: Human Kinetics Publishers.
4. Maida, Carl A. and Beck, Sam. (2017). *Public Anthropology in a Borderless World*, New York: Berghahn Books.
5. Majumdar, D.N. (2022). *Races and Cultures of India*. New Delhi: Life Span Publisher & Distributors.
6. Murrell, K.F.H. (1980). *Ergonomics: Man in His Working Environment*. Dordrecht: Springer. <https://doi.org/10.1007/978-94-009-5878-4>
7. Nolan, Riall. (2018). *Development Anthropology: Encounters in the real world*. DOI:[10.4324/9780429501005](https://doi.org/10.4324/9780429501005).
8. Pink, Sarah. (2019). *Theoretical Scholarship and Applied Practice*. New York: Berghahan Books.
9. Stern, Curt. (1949). *Principles of Human Genetics*. New York: W.H. Freeman & Co. Ltd.
10. Sodhi, Harminder Singh & Sidhu, L. S. (1984). *Physique and Selection of Sportsmen: A Kinanthropometric Study*. Punjab: Punjab Publishing House.
11. Stull, Donald D. (2020). *Collaborative Research and Social Change: Applied Anthropology in Action*. London: Routledge.
12. Tax, Sol. (1975). Action Anthropology. *Current Anthropology*, Vol. 16, No. 4, pp.514-517.
13. Vidyarthi, L.P. (2014). *Applied Anthropology in India*. New Delhi: Kitab Mahal.
14. Willigen, John Van and Kedia, Satish. (2005). *Applied Anthropology: Domain of Application*. Westport: Praeger Publishers Inc.
15. Wilson, Richard Ashby. (1998). *Human Rights, Culture & Context: Anthropological Perspectives*. Pluto Press.
16. e GyanKosh. (2018). Unit 4. Action Anthropology. (<https://egyankosh.ac.in/handle/123456789/42177>)

FIFTH SEMESTER

Paper Code: ANT 050104

Course IX: Social and Cultural Anthropology: ANTHROPOLOGICAL THEORIES AND THOUGHTS

Course Objectives

- To impart the knowledge about the basic theories of culture and society in the study of Anthropology

Course level: 300-399

Prerequisite: Students have to clear Fourth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes

- Students will be acquainted with the basic concepts and theories of culture in Anthropology, and their functioning in the social system, based on perspectives of different scholars.

Total Credits: 4

Total Marks: 100

Theory (End Term): 80 (80% of 100)

Internal / Sessional Examination: 20 (20% of 100)

Number of required classes: 75

Number of contact classes/hours: 60

Number of non-contact classes: 15

Course Content

UnitI: Theories of Evolutionism (E. B. Tylor, J. G. Frazer and Morgan), Diffusionism and Culture area theories; Historical Particularism (Franz Boas); Neo-evolutionism (V. Gordon Childe, Leslie White, Julian Steward)

UnitII: Durkheim and social integration; Functionalism (Bronislaw Malinowski), Structural-functionalism (A. R. Radcliffe-Brown, Raymond Firth and S. F. Nadel).

UnitIII: Structuralism (Claude Levi-Strauss and E. R. Leach). Culture and Personality (Ruth F. Benedict, Margaret Mead and Cora Du-Bois). Cultural materialism (Marvin Harris).

UnitIV: Cognitivism- Emicism and Eticism

Suggested Reading:

1. Barnard, A. (2021). *History and Theory in Anthropology (2nd Edition)*. Cambridge: University Press.
2. Clifford, J. and G. Marcus. (2010). *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley: University of California Press.
3. Ember, C.R., Ember M. and Peregrine, Peter N. (2020). *Anthropology(15thEd.)*, NJ: Pearson Education.
4. Erikson, T. H. & Nielson, Finn Sivert. (2013). *A History of Anthropology*. London: Pluto Press.
5. Evans-Pritchard, E. (1981). *History of Anthropological Thought*. New York: Basic Books.
6. Geertz, C. (2017). *The Interpretation of Culture (3rd Edition)*, New York: Basic Books.
7. Harris, Marvin. (2001). *Rise of Anthropological Theory: A History of Theories of Culture*. US: Altamira Press.
8. Layton, Robert. (1998). *An Introduction to Theory in Anthropology*. Cambridge: University Press.
9. Leach, E.R. (1954). *Political Systems of Highland Burma*. Boston: Beacon Press.
10. Levi-Strauss, C. (1963). *Structural Anthropology*. New York: Basic Books.
11. McGee, R.J. and R.L. Warms. (2020). *Anthropological Theory: An Introductory History. (7th Edition)*, London: Rowman & Littlefield Pub.
12. Radcliffe-Brown, A.R. (1952). *Structure and Function of Primitive Society*. London: Routledge & Kegan.

Paper Code: ANT 050204

Course VIII: Physical Anthropology (Elective 1): HUMAN POPULATION GENETICS

Course level: 300-399

Prerequisite: Students have to clear Course VII of Anthropology FYUGP

Graduate Attributes/Outcomes

Students after doing this course will:

1. Understand the methods of transmission of genetic characteristics in humans.
2. Understand how ecology and other evolutionary mechanisms can alter or structure variation in populations.

Total Credits: 4 (Theory: 3, Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory: 45, Practical: 15)

Number of non-contact classes: 15 (Library studies, Assignments)

Course Content

Unit I: Meaning and scope of human population genetics.

Unit II: Genetic background: Landmarks in the history of genetics. Mendel's laws of inheritance: Segregation and independent assortment; Dominant and recessive genes. Single locus (Mendelian) and Multi-locus (Quantitative/complex) inheritance. Other forms of inheritance: Codominant, Sex linked, Sex limited, Sex controlled, epistasis, penetrance and expressivity, cytoplasmic inheritance.

Unit III: Ecological genetics and polymorphism. Phenotypic and genotypic polymorphism (Models explaining maintenance of genetic polymorphism: Sickle cell and malaria, X-linked polymorphism, selection due to infectious diseases, association with blood groups). Transient polymorphism, balanced polymorphism.

Unit IV: Hardy-Weinberg principle: Concept, assumptions, application and exceptions.

Unit V: Dynamics of gene frequencies: Mutation, Natural Selection, Genetic drift (bottle neck and founder's effect), Gene flow and Inbreeding.

Unit VI: Population Structure and admixture in human population. Random and non-random mating (positive and negative assortative mating), heritability.

Practical

- a. Serology: ABO and Rh(D) Blood group. Students should determine ABO and Rh(D) blood group of five subjects following standard procedure.
- b. Sense Perception: Colour blindness and PTC taste sensitivity (Students should test colour blindness and tasting ability of PTC of at least five subjects.)
- c. Physiological measures: Blood pressure and pulse rate.
- d. Dermatoglyphics: Students should take finger and palm prints of at least five subjects and identify the finger patterns and mainline formula.

Suggested Readings:

1. Brooker, R.J. (2021). *Genetics: Analysis & Principles*. The McGraw-Hill Companies, Inc 7thed. ISBN13: 9781260240856
2. Cavalli-Sforza, L.L. and Bodmer, W.F. (1971). *The Genetics of Human Population*. Mineola, New York: Dover Publications, Inc.
3. Cooper, D. N., & Kehrer-Sawatzki, H. (2008). *Handbook of Human Molecular Evolution*. John Wiley.
4. Crawford, M.H. (2007). *Anthropological Genetics Theory, Methods and Applications*. England:Cambridge University Press.
5. Cummings, M.R. (2011). *Human Heredity: Principles and Issues*. 9th Edition. Brooks/Cole: Cengage Learning.

6. Das, B. M. and Deka, Ranjan. (2013). *Physical Anthropology Practical*. Allahabad: Kitab Mahal.
7. Jobling, M., Hurles, M., & Tyler-Smith, C. (2013). *Human Evolutionary Genetics: Origins, Peoples & Disease*. New York: Garland Science.
8. Lew, Kristi. (2019). *Understanding the Human Genome*. Enslow Publishing.
9. Lewis R. (2009). *Human Genetics: Concepts and Applications* 9th Edition. The New York: McGraw–Hill Companies, Inc.
10. Mcelheny, K. Victor (2010). *Drawing the Map of Life: Inside the Human Genome Project*. USA: Merloyd Lawrence Book,
11. Patch, C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group
12. Relethford, J.H. (2012). *Human Population Genetics*. USA: Wiley-Blackwell, (Free Access available at Wiley Online Library <https://onlinelibrary.wiley.com/doi/books> Online ISBN: 9781118181652). DOI :10.1002/9781118181652
13. Snustad, D.P. and Simmons M.J. (2006). *Principles of Genetics*, 4th Edition, USA, Hoboken, NJ: John Wiley& Sons,
14. Strachan, T. and Read, A. (2004). *Human Molecular Genetics*. Garland Science/Taylor & Francis Group.
15. Vogel, F. and Motulsky, A.G. (1996). *Human Genetics*. 3rd revised edition. USA: Springer.

Paper Code: ANT 050304

Course VIII: PHYSICAL ANTHROPOLOGY (Elective- II): HUMAN GENETICS

Course Objectives

The course will provide an understanding of basic human molecular genetics.

Course level: 300-399

Prerequisite: Students have to clear Fourth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes

1. The students will learn about the structure and function of human genome.
2. The students will learn how genomic variation is studied.
3. The students will learn about the genomic diversity and human evolution.

Total Credits: 4 (Theory)

Theory (End Term): 80 (80% of 100)

Internal / Sessional Examination: 20 (20% of 100)

Number of required classes: 75

Number of contact classes/hours: 60

Number of non-contact classes: 15

Course Content

- 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; 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 Peopling of the Indian Subcontinent: Evidence from mt DNA and Y-chromosome; evolutionary genetics; Molecular evolution; DNA sequence variation and human origins.
- Unit VI:** Blood Collection, transportation and storage in field, DNA Extraction from whole blood, DNA Quantification, Aliquoting and sample preparation, PCR and electrophoresis, Gel Documentation

Suggested Readings:

1. Brown, T.A. (2007). *Genomes*. New York: Garland Science.
2. Cavalli-Sforza, L.L., Menozzi P., Piazza, A. (1994). *History and Geography of Human Genes*. Princeton University.
3. Cummings, M.R. (2011). *Human Heredity: Principles and Issues*. Brooks/Cole, Cengage Learning
4. Gardner, A. and Davies, T. (2012) *Human Genetics*. Delhi: Viva Books Pvt Ltd.
5. Giblett, E.R. (1969). *Genetic Markers in Human Blood*. Oxford: Blackwell Scientific.
6. Griffiths, A.J.F. (2002). *Modern Genetic Analysis: Integrating Genes and Genomes*. WH Freeman Press.
7. Griffiths, A.J.F., Wessler, S.R., Carroll, S.B., Doebley, J. (2011). *An Introduction to Genetic Analysis*. Macmillan Higher Education.
8. Jobling, M., Hurl, M. and Tyler-Smith, C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. New York: Garland Science
9. Kothari M. L., Mehta, L.A and Roychoudhury, S.S. (2012) *Essentials of Human Genetics*, 5th edition. Delhi: University Press Hyderabad.
10. Lewis, R. (2009). *Human Genetics: Concepts and Application*. The McGraw–Hill Companies, Inc.
11. Patch, C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group.
12. Snustad, D.P. and Simmons, M.J. (2006). *Principles of Genetics*, 4th Edition: John Wiley & Sons.
13. Strachan, T. and Read, A.P. (2004). *Human Molecular Genetics*. New York: Garland Science
14. Vogel, F. and Motulsky, A.G. (1996). *Human Genetics*. 3rd revised edition. Springer

Paper Code: ANT 050404

Course X:Prehistoric Archaeology: PREHISTORIC CULTURES

Course objectives:

- To understand the prehistoric cultures, their chronology, spatial distribution along with tool typology and associated fossil evidences in global context.

Course level: 300-399

Prerequisite: Students have to clear Fourth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes:

- Students will be acquainted with prehistoric cultural development in Europe, Africa and Asia, through bio-archaeological evidence.

Total Credit 4 (Theory: 3; Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory: 45, Practical: 15)

Number of non-contact classes: 15

Course Content

Theory

Unit I: Prehistoric cultural development in Europe: Lower Palaeolithic, Middle Palaeolithic, Upper Palaeolithic and associated fossil evidences.

Unit II: Prehistoric cultural development in Africa: Lower Palaeolithic, Middle Palaeolithic, Upper Palaeolithic and associated fossil evidences.

Unit III: Prehistoric cultural development in Asia: Chukoutien (Peking man), Patjitanian (Java man) and Hoabinhian.

Unit IV: Prehistoric art: Meaning, types, motifs, chronology and distribution in Europe and India.

Practical:

Application of Remote sensing and GIS in Prehistoric Archaeology

- Visual Interpretation Techniques/Keys
- Visual interpretation of Aerial photography; identification and mapping of cultural features from aerial photography
- Identification and drawing of physical and cultural features from satellite imagery

Suggested reading:

1. Bellwood, P. (1978). *Man's Conquest of Pacific: Prehistory of southeast Asia and Oceania*. Auckland: William Collins Publisher Ltd.
2. Bhattacharya D.K. (1997). *Prehistoric Archaeology (A Comparative Study of Human Succession)*. India: Hindustan Publishing Corporation.
3. Bhattacharya D.K. (2020). *The Emergence of Cultures in Europe*. Delhi: B.R. Publication Corporation.
4. Burkitt, M.C. (1963) *The Old Stone Age*, 4th edition. London: Bowes and Bowes Publishers,
5. Kumar, S. (2005) *Basics of Remote Sensing and GIS*. University Science Press
6. Leakey L.S.B. (1936). *Stone Age Africa: An Outline of Prehistory in Africa*. London: Oxford University Press.
7. Pandey, Sivam and Tripathi, Shashikant. (2020). *Basic Concept of Remote Sensing, GPS and GIS*. India: Sankalp Publication.

Paper Code: ANT 050504

Course XI: ECOLOGICAL ANTHROPOLOGY – BIOLOGICAL & CULTURAL DIMENSIONS

Course objectives:

1. To discuss the various approaches to understand the relationship between man and environment.

Course level: 300-399

Prerequisite: Students have to clear Fourth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes:

1. Students will learn how adaptation allows man to survive and reproduce in their natural environments.
2. Students will be able to apply concepts and methods to understand and address contemporary environmental challenges.

Total Credit 4

Total Marks: 100

Theory (End Term): 80 (80% of 100)
Internal / Sessional Examination: 20 (20% of 100)

Number of required classes: 75
Number of contact classes/hours: 60
Number of non-contact classes: 15

Course Content

- Unit I:** Ecological Anthropology: Definition, concept and methodology; biotic and abiotic component. Problems related to Environmentalism and future directions. Ethno-ecology, Indigenous Knowledge and Conservation strategies.
- Unit II:** Culture as a tool of adaptation: Hunting and food-gathering, fishing, pastoralism, horticulture, shifting cultivation, settled cultivation. Man-Environment relationship: Environmental Determinism, Environmental Particularism, Cultural Materialism.
- Unit III:** (i) Bio-cultural adaptation to environmental stresses: Eco sensitivity, acclimation, acclimatization, adaptation, heat, cold and altitude. Homeostasis and thermoregulation. Ecological rules and their applicability among human beings (Gloger's, Allen's and Bergmann's rule).
(ii) Bio-cultural factors influencing the diseases and nutritional status. Evolution of Human diet.
- Unit IV:** Impact of urbanization and industrialization on man: Pollution (land, air, water, chemical, noise); population pressure, deforestation, climate change and environmental disasters.

Suggested Readings

1. Berry, J.B. (1976). *Human ecology and cognitive style: comparative studies in cultural and physical adaptation*. New York: John Wiley.
2. Cohen, Yehudi. A. (1974). *Man in Adaptation*. Chicago, Aldine: Taylor & Francis Ltd.
3. Devy, G. N. and Davis, Geoffrey V. (eds.). (2021). *Performance and Knowledge: Key concepts in Indigenous Studies*. Oxford shire: Taylor & Francis Ltd.
4. Manners, Robert A. and David Kaplan. (eds.) (1968). *Theory in Anthropology*. London: Routledge & Kegan Paul.
5. Dove, Michael R., Carpenter, C. (2008). *Environmental Anthropology: A historical reader*. Cambridge University Press.
6. Paul R. Ehrlich, Ehrlichand, Anne H. and Holdress, John P. (1973). *Human ecology: Problems and Solutions*. San Francisco: W.H. Freeman & Company.
7. Schutkowski, H. (2006). *Human Ecology: Biocultural Adaptation in Human Communities*. Berlin: Springer Verlag.
8. Stapledon, Robert Waller. (1964). *Human ecology*. London: Faber & Faber.
9. Stini, William A. (1975). *Ecology and human adaptation* (Anthropology series) W. C. Brown Co.
10. Sutton, M.Q. and Anderson, E.N. (2004). *Introduction to Cultural Ecology*. London: Routledge.

11. Theodorson, G.A. Row. (1961). *Studies in Human Ecology*. New York: Peterson & Company Elmsford.

SIXTH SEMESTER

Paper Code: ANT 060104

Course XII - Physical Anthropology (Elective 1): HUMAN GROWTH AND DEVELOPMENT

Course Objective

1. Provide an understanding of the growth of human from prenatal to adult stage.

Course level: 300-399

Prerequisite: Students have to clear Fifth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes

1. It will provide the students with a broader understanding of normal growth and development across the lifespan.

Total Credit 4 (Theory: 3; Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory:45, Practical: 15)

Number of non-contact classes: 15

Course Content

Theory

Unit I: Concept of human growth, development, differentiation and maturation

Unit II: Prenatal (conception till birth) and postnatal (birth till senescence) period of growth, Pattern of normal growth curves, 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:** Concept of Ageing and Senescence. Primary, secondary and tertiary ageing. Methods and techniques of studying age changes.
- Unit V:** 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 VI:** Human physique and body composition: models and techniques; gender and ethnic differences.

Practical

1. Growth status: Somatometry (stature, body weight, mid upper arm circumference, chest girth, abdominal girth, hip circumference, calf circumference), assessment of chronological age.
2. Obesity assessment: General (BMI, body fat %, Conicity index, body adiposity indices) and regional adiposity indices (WC, WHR, WHtR).
3. Nutritional assessment through dietary pattern and anthropometric indices.

Suggested Readings:

1. Bogin, B. (1999). *Patterns of Human Growth*. England: Cambridge University Press.
2. Cameron, N. and Bogin, B. (2012). *Human Growth and Development* (Second edition.). Cambridge, Massachusetts, United States: Academic Press.
3. Frisancho, R. (1993). *Human Adaptation and Accommodation*. Michigan: University of Michigan Press.
4. Harrison, G.A. and Howard, M. (1998). *Human Adaptation*. England: Oxford University Press.
5. Harrison, G.A., Tanner, J.M., Pilbeam, D.R. and Baker, P.T. (1988). *Human Biology*. England: Oxford University Press.
6. Jurmain, R., Kilgore, L., Trevathan, W. (2016). *Essentials of Physical Anthropology*. Belmont: Wadsworth Publishing Co. Inc.
7. Kapoor, A.K., and Kapoor, S. (1995). *Biology of Highlanders*. Jammu: Vinod Publishers and Distributors.
8. Kathleen, K. (2008). *Encyclopedia of Obesity*. London: Sage Publications.
9. Malina, R.M., Bouchard, C., Oded, B. (2004). *Growth, Maturation, and Physical Activity*. Champaign, IL: Human Kinetics.
10. McArdle, W.D., Katch, F.I., Katch, V.L. (2014). *Exercise Physiology: Energy, Nutrition, and Human Performance*. Pennsylvania: Lippincott Williams & Wilkins.
11. Singh, I., Kapoor, A.K., Kapoor, S. (1989). Morpho-Physiological and Demographic status of the Western Himalayan population. In Basu and Gupta (eds.). *Human Biology of Asian Highland Populations in the Global Context*. Delhi, University of Delhi: Indian Anthropological Society.
12. Sinha, R. and Kapoor, S. (2009). *Obesity: A multidimensional approach to Contemporary global issue*. Delhi: Dhanraj Publishers.

Paper Code: ANT 060204

Course XII: Physical Anthropology (Elective-II) :DEMOGRAPHIC ANTHROPOLOGY

Course Objective

- To provide an understanding of the demographic aspects of population.

Course level: 300-399

Prerequisite: Students have to clear Fifth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes

1. Students will learn about the basics of demography and demographic theories.
2. Students will learn about the tools used for studying population change.

Total Credit 4 (Theory: 3; Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory:45, Practical: 15)

Number of non-contact classes: 15

Theory

Unit I: Demographic Anthropology: Introduction, definition and basic concepts. Relationship between demography, population studies and anthropology. Importance of population studies in Anthropology

Unit II: Population Theories: John Graunt, Thomas R. Malthus. Biological theory of population. Theory of demographic transition

Unit III: Tools for studying Demographic data. Measures of population composition, distribution and growth. Measures of fertility, mortality and migration.

Unit IV: Population of India: Sources of demographic data in India. Growth of Indian population. Demography of Indian tribal and non-tribal groups.

Anthropological determinants of population growth. Impact of urbanization on the migration of tribal groups.

Unit V: National policies and role of Anthropology: National Population Policy, National Health Policy, National Policy on Reproductive and Child Health, National Policy for Older Person.

Practical

A student will collect and compile demographic data either from primary or secondary sources on any given topic and a project report will be submitted for evaluation.

Suggested Readings:

1. Bhende, A. and Kanitkar, T. (2006). *Principles of Population Studies*. Mumbai:Himalaya Publishing House.
2. Caldwell, J.C. (2006). *Demographic Transition Theory*. Manhattan, NYC: Springer.
3. Gautam, R.K., Kshatriya, G.K. and Kapoor, A.K. (2010). *Population Ecology and Family Planning*. New Delhi: Serials Publications.
4. Howell, N. (1986). Demographic Anthropology. *Annual Review of Anthropology*. 15: 219-246.
5. Kshatriya, G.K. (2000). Ecology and health with special reference to Indian tribes. *Human Ecology*. Special volume 9:229-245.
6. Kshatriya, G.K., Rajesh, G. and Kapoor, A.K. (2010). *Population Characteristics of Desert Ecology*. V.D.M. Verlag. Germany: Dr. Muller Gmbh and Co.
7. Misra, B.D. (1982). *An Introduction to the study of Population*. New Delhi: South Asia Publication Ltd.
8. *National Population Policy*. <http://populationcommission.nic.in/npp.htm>
9. NSO (2021). Elderly in India, National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India. New Delhi. Park, K. (2000). *Text book of Preventive and Social Medicine*. Jabalpur: Banarsidas Bhanot.
10. Patra, P.K. and Kapoor, A.K. (2009). *Demography And Development Dynamics in a Primitive Tribe of Himalayas*. Dehradun: International Book Distributors.
11. Riley, N.E. and Mc Carthy, J. (2003). *Demography in the Age of the Postmodern*. (pp. 1-13 and 32-98). UK: Cambridge University Press.
12. Sharma, A.K. (1979). Demographic transition: A Determinant of Urbanization. *Social Change* (9: 13-17).
13. Srivastava, O.S. (1994). *Demography and Population Studies*. Noida: Vikas Publishing House Pvt. Ltd.
14. Zubrow, E.B.W. (1976). *Demographic Anthropology. Quantitative Approaches*. Albuquerque: University of New Mexico Press.
15. <https://ruralindiaonline.org/hi/library/resource/elderly-in-india-2021/>
16. *Caring for Our Elders: Early Responses India Ageing Report – 2017*. United Nations Population Fund (UNFPA) 55 Lodi Estate, New Delhi 110003. (<https://india.unfpa.org/sites/default/files/pub-pdf/India%20Ageing%20Report%20-%202017%20%28Final%20Version%29.pdf>)

Paper Code: ANT 060304

Course XIII: Social and Cultural Anthropology: INDIAN SOCIETY AND CULTURE – II

Course Objectives

This course focuses on the origin of anthropological study in India, the core dimensions and the socio-cultural changes in the Indian society.

Course Level: 300-399

Prerequisites: Students have to clear Fifth Semester of Anthropology FYUGP

Graduate Attributes / Outcomes

Students will learn about the approaches to understand Indian society and culture, the process of socio-cultural changes, and the significant contributions of Indian anthropologists.

Credit – 4

Total Marks: 100

Theory (End Term)- 80 (80% of 100)

Internal: 20 (20% of 100)

- Sessional Examination: 10 (50% of 20)
- Assignment: 10 (50% of 20)

Number of required classes: 75

Number of contact classes/hours: 60

Number of non-contact classes: 15

UnitI: Origin and development of Anthropology in India; Approaches to the study of Indian society and culture; Dimensions of Indian society: tribe, peasant and urban.

UnitII: Indigenous and exogenous processes of socio-cultural change in Indian society: Sanskritization, Westernization, Modernization; Little and Great traditions; Universalization and Parochialization. Tribe-caste continuum.

UnitIII: The concept of peasantry; distinction between tribes and peasants. Peasant society and culture in India. Urban India and its characteristics; Rural-urban migration in India.

UnitIV: Contribution of some selected Indian Anthropologists: S. C. Roy, M.N. Srinivas, H.D. Sankalia, D. N. Majumdar, Iravati Karve, N. K. Bose, S.C. Dube, L. P. Vidyarthi, M.C. Goswami, B.M. Das and Verrier Elwin.

ASSIGNMENT:

Students are required to write a note on the contributions of any one of the above Indian anthropologists as a part of assignment.

Suggested readings:

1. Beteille, A. (1988). *Essays in Comparative Sociology*. New Delhi: Oxford University Press.
2. Beteille, A. (2012). *Caste, Class and Power*. New Delhi: Oxford University Press.
3. Bernard, C.S. (2000). *India: The Social Anthropology of Civilization*. New Delhi: Oxford University Press.
4. Dube, S.C. (1992). *Indian Society*. National Book Trust, India: New Delhi.
5. Goswami, M.C. and Majumdar, D.N. (1972). *Social Institutions of the Garo of Meghalaya: An Analytical Study*. New Delhi: Sanctum Books.
6. Hasnain, Nadeem. (2022). *Tribal India*. New Delhi, Palaka Prakashan.
7. Hasnain, Nadeem. 2022. *Indian Anthropology*. New Delhi, Palaka Prakashan.
8. Inden, R. 1980. *Imagining India*. Oxford: Basil Blackwell.
9. Majumdar, D.N. (2022). *Races and Cultures of India*, New Delhi: Life Span Publisher & Distributors.
10. Mandelbaum, D.G. (1972). *Society in India: I Continuity and Change, II Change and Continuity*. Bombay: Popular Books.
11. Redfield, Robert. (1956). *Peasant Society and Culture*. Chicago: Chicago University Press.
12. Rudolph, L. and S. Rudolph. (1970). *The Tradition of Modernity*. London: Chicago University Press.
13. Singer, M. (1955). The Cultural Pattern of Indian Civilization. *The Far Eastern Quarterly*, 15 (1).
14. Srinivas, M.N. (1987). *Dominant Caste and Other Essays*. Delhi: Oxford University Press.
15. Srinivas, M.N. (1962). *Caste in Modern India and Other Essays*. Bombay (Mumbai): Asia Publishing House.
16. Srinivas, M.N. (2004). *Collected Essays*. Delhi: Oxford University Press.
17. Trautmann, T. R. (2011). *India: Brief history of Civilization*. Delhi: Oxford University Press.
18. Vidyarthi, L.P. and Rai, B.K. (2014). *The Tribal Culture of India*. New Delhi: Concept Publishing.

Paper Code: ANT 060404

Course XIV:Prehistoric Archaeology:PREHISTORY OF INDIA

Course Objectives:

- To acquaint the students with the prehistoric background of the country both from theoretical and practical perspective.

Course level – 300-399

Prerequisite- Students have to clear Fifth Semester of Anthropology FYUGP

Graduate Attributes/Outcomes

1. The students will be familiar with the prehistoric cultures of the country.
2. The students will understand the prehistoric foundations on which the later course of history developed.

Total Credit 4 (Theory: 3; Practical: 1)

Total Marks: 100

Theory- 75, Practical – 25

Theory (End Term): 60 (80% of 75)

Internal / Sessional Examination: 15 (20% of 75)

Practical (End Term): 20 (80% of 25)

Internal Examination: 5 (20% of 25)

Number of required classes: 75

Number of contact classes/hours: 60 (Theory:45, Practical: 15)

Number of non-contact classes: 15

Theory

Unit I: Salient features, distribution and interpretation of habitat and economy of the following cultures of India:

- i. Lower Palaeolithic
- ii. Middle Palaeolithic
- iii. Upper Palaeolithic
- iv. Mesolithic
- v. Neolithic

- Unit II:** Bronze Age culture in Indus Basin: Harappan Civilization: Sites, Artifacts, Townplanning and Architecture, Trade and Commerce, and Causes of decline.
- Unit III:** Concept of Megaliths: Megalithic cultures in India with special reference to North East India.
- Unit IV:** Few excavated archaeological sites of North East India: DaojaliHading, Selbalgre, Ambari, Sarutaru and Marakdola.

Practical:

Ceramic Technology -
Production Technique, identification, drawing and description of four (4) handmade and four (4) wheel made pottery.
Characteristic features of Neolithic, Chalcolithic and historical pottery of India.

Suggested readings:

1. Allchin, Bridget and Allchin, Raymond. (1982). *The Rise of Civilization in India and Pakistan*. Cambridge: Cambridge University Press.
2. Basa, Kishor, K. Rabindra, K. Mohanty and Simadri, B. Ota. (2015). *Megalithic Tradition in India: Archaeology and Ethnography*. (Edited book). New Delhi: Aryan Books International.
3. Bhattacharya, D. K. (1996). *An Outline of Indian Prehistory*. Delhi: Palika Prakashan.
4. Reddy, Rami V. (1991). *Neolithic and Post Neolithic Cultures*. India:South Asian Books.
5. H. D. Sankalia. (1974). *Prehistory and Protohistory of India and Pakistan*. Poona: Deccan College Post Graduate Research Institute.
6. H. D. Sankalia. (1982). *Stone Tool Type and Technology*. Delhi: B.R. Publication.
7. Thapar, B.K. (1985), *Recent Archaeological Discoveries in India*. France: UNESCO
8. Orton, Clive and Hughes, Michael. (2013). *Pottery in Archaeology*. 2nd Edition. Cambridge: Cambridge University Press.

Paper Code: ANT 060504

**Course XV: Socio-Cultural Anthropology:ETHNOGRAPHIC FIELDWORK
(Compulsory)**

Course Objectives:

- To train the students for applying anthropological field methods to collect relevant data while undertaking ethnographic fieldwork on a community or area.

Course level: 300-399

Prerequisite: Students have to clear Fifth Semester of Anthropology FYUGP

Graduate Attributes/ Outcomes:

- Students will be able to learn how to prepare a research design, apply methodology and conduct anthropological research on a topic, analyze data and write a comprehensive report.

Credit: 4

Total Marks: 100

Report- 64 (80% of 80), Viva-voce- 16 (20% of 80)

Internal Assessment: 20

Number of required classes: 75

Number of contact classes/hours: 15

Number of non-contact classes: 60

Students have to undertake an ethnographic fieldwork on a community / area for a period of **10 days**. Based on the data collected, the students will have to submit a report to the department. He/she will be assigned one supervisor or guide. Preparatory classes will be undertaken on research methods before students conduct fieldwork.

Marks will be allotted based on the **report and viva-voce**.

Suggested Readings:

1. Basu, M. N. (1961). *Field Methods in Anthropology and Other Social Sciences*. Calcutta: Bookland Private Ltd.
2. Emerson, M. Robert, Fretz, R. I. and Shae, L.T. (2011). *Writing Ethnographic Fieldnotes*, Chicago: University of Chicago Press.
3. Kothari, C. R. (1985). *Research Methodology – Methods and Techniques*. New Delhi: Wiley Eastern Limited.
4. A Committee of the Royal Anthropological Institute of Great Britain and Ireland. (1967). *Notes and Queries on Anthropology*. (Sixth Edition). London: Routledge and Kegan Paul Ltd.
5. Okely, Judith. (2011). *Anthropological Practice: Fieldwork and the Ethnographic Method*. London: Routledge.
6. Pillai, R.S.N. and Bagavathi, V. (2003). *Practical Statistics*. New Delhi: S. Chand & Company.
7. Watson, C. W. (1999). *Being There: Fieldwork in Anthropology*. London: Pluto Press.
