

**WEST BENGAL STATE UNIVERSITY**

**4-YEAR & 3-YEAR UNDERGRADUATE PROGRAMME  
UNDER CURRICULUM & CREDIT FRAMEWORK  
IN ANTHROPOLOGY**

**ACADEMIC SESSION 2023-24**

**MAJOR (DS) COURSES – pp 2 - 31**

**MINOR COURSES – pp 32 – 39**

**SKILL ENHANCEMENT COURSES – pp 40 - 42**

**MULTIDISCIPLINARY COURSE – pp 43**

## SEMESTER - I

### ANTA-DS-01: INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

Theory

Credit-3

**Unit – I: Introducing Anthropology:** Definition, aim & scope; distinctiveness with special emphasis to biological anthropology.

**Unit-II: Biological Anthropology:** Definition, aim and scope; it's approaches – Bio-cultural, comparative and evolutionary. Concepts and application of adaptation and evolution in Biological anthropology; different branches and fields of study; Relationship of biological anthropology with medical science, health science, life science, earth science and environmental science.

**Unit – III: Theories of organic evolution:** Lamarckism, Neo-Lamarckism, Darwinism, Neo-Darwinism, Synthetic theory, Neutral theory; Some basic concepts of Evolution: Speciation - Allopatric, Parapatric, Sympatric, Gradualism, Punctuated equilibrium, Irreversibility, Parallelism and Convergence, Adaptive Radiation, Extinction.

**Unit – IV: Study of Primates in evolution:**

1. Primates: Definition, characteristics.
2. Classification of living primates up to family level with example (Simpson); concepts of strepsirrhini and haplorrhini.
3. Primate behaviour: Social and sexual behaviour of non-human primates, social group composition (with examples from Orangutan and Chimpanzee)
4. Primate evolutionary trends: limbs & locomotion, teeth & diet, senses, brain & behavior. Morphological and anatomical features of apes viz. gibbons, orangutan, chimpanzee, gorillas. Comparison of morphological and anatomical features of humans and apes
5. Significance of studying non-human primate in Biological Anthropology.

**Unit – V: Human skeletal anatomy and functional morphology of bones as parts of total skeleton; relevance of studying human anatomy as a part of anthropology, classification of bones, their anatomical positions and functions.**

Practical

Credit-2

**Unit – I:** Identification of Human cranium – it's different norms - *norma verticalis*; *norma lateralis*; *norma occipitalis*; *norma basalis*; *norma frontalis*; Identification of Cranial bones: Frontal, Parietal, Temporal, Occipital, Maxilla, Zygomatic, Sphenoid, Mandible (anatomical position, side determination, where applicable). Identification, anatomical position and side determination of Post-Cranial Bones: Scapula, Clavicle, Femur, Tibia, Fibula, Humerus, Radius, Ulna.

**Unit – II: Craniometric Measurements (Skull & Mandible)**

(Direct measurements on **at-least 3 human skulls**)

**1. Linear:**

- a. Maximum Cranial Length,
- b. Maximum Cranial Breadth,
- c. Morphological Facial Height,
- d. Bi-zygomatic diameter,
- e. Bi-gonial diameter,

- f. Nasal Length,
- g. Nasal Breadth,
- h. Orbital Height,
- i. Orbital Breadth,
- j. Least Frontal Breadth,
- k. Mandibular Length,
- l. Bi-condylar diameter.

**2. Indices:**

- a. Cranial Index,
- b. Morphological Facial Index,
- c. Nasal index,
- d. Jugo-Frontal Index.

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## ANTA-DS-02: INTRODUCTION TO SOCIAL-CULTURAL ANTHROPOLOGY

Theory

Credit – 4

**Unit – I: Introducing Anthropology:** Definition, aim & scope; distinctiveness with special emphasis to social-cultural anthropology.

### Unit-II:

**1. Fundamentals of Social-Cultural Anthropology:** Definition, aim & scope, Distinctiveness - Holism, Cultural Relativism and Cross Cultural Comparison, Fieldwork in Anthropology - Importance and Genesis.

**2. Concepts of the major sub-fields:** Economic Anthropology, Political Anthropology, Anthropology of Religion, Medical Anthropology, Linguistic Anthropology.

**3. Relationship with Social Sciences:** Economics, Geography, History, Political Science, Psychology, Sociology.

### Unit – III: Concepts of Society and Culture (Definitions and salient features)

**1. Society, Group, Community, Social Institution, Social Unit, Social Association, Social Fact, Socialization, Social System (Social Structure & Social function), Status and Role, Social Stratification, Gender, Ethnicity.**

**2. Culture: Definition & Concepts by E. B. Tylor, L. White, A. Kroeber, N. K. Bose.**

Attributes of Culture: Learned, Shared, Transmitted, Adaptive, Symbolic, Cognitive, Dynamic; Norms, Values, Enculturation, Material Culture, Culture Element, Culture Trait, Trait Complex, Diffusion, Acculturation, Ethnocentrism, Culture Universal, World View.

**3. Material Culture:** Definition and importance, Types and functions of various forms of hunting, fishing, agricultural implements, dress, ornaments, house types in different environmental background.

### Unit – IV: Social Organization:

**1. Family:** Definition, Types & Functions, Changes due to Industrialization & Urbanization (with special reference to Indian Context).

**2. Marriage:** Definition, Types, Preferential & Prescribed forms of marriage, Functions of marriage, Universality of marriage, Incest taboo, Ways of acquiring mates in tribal society, Dowry, Bride price, Gift, Post-marital residence, Divorce & Remarriage.

**3. Kinship:** Definition, Structure of kinship (Murdock); Function of kinship, Kinship behaviour - Avoidance, Joking, Couvade, Teknonymy; Kinship system - Hawaiian, Eskimo, Sudanese, Iroquis, Crow, Omaha, Bengali kinship system;

Descent - Types & Functions; Unilateral, Bilateral & Double descent.

**4. Economic System:** Production (foraging, pastoralism, shifting cultivation, horticulture, intensive agriculture); Reciprocity, Redistribution and Market. Special mode of exchange – *Kula*.

**5. Political Organization:** Primitive Law, Authority, Oath and Ordeal, Sanction and Taboo, Tribe, Band, Chiefdom, State; Concept of Moiety, Phratry, Lineage, Clan.

**6. Religion:** Definition and Anthropological approach; Animism, Animatism, Manaism, Totemism; Magic and Religion.

Tutorial

Credit – 1

The tutorial will include the separate class assignments from the above mentioned Units given by the concerned Department, and the records of which should be preserved in the Department.

## SEMESTER – II

### ANTA-DS-03: ARCHAEOLOGICAL ANTHROPOLOGY

Theory

Credit- 3

**Unit – I: Introduction to Archaeological Anthropology:** Definition and scope of Archaeological Anthropology, Relationship with other disciplines - History, Geography, Geology and Archaeology.

Prehistory: Definition, aim, scope, concept of periodization - Three Age System. Definition of Tool, Artifact, Industry, Assemblage; A brief introduction to different cultural stages in Prehistory and Protohistory;

Methods of study - site survey and excavation, Different methods of exploration/site survey; Different stages of excavation - pre-excavation stage, actual stages of digging up of archaeological site, trial trench, horizontal and vertical excavation; Differences between excavation and exploration.

**Unit –II: Methods of Estimation of time in archaeology:** Concept of chronology in Prehistory, Following dating methods are to be studied based on the points - discovery, first use, datable material, basic principle, precautions, method of sample collection, advantages and disadvantages, specific examples;

Methods of dating: Stratigraphy, Typo-technological analysis, C14, K/Ar, Dendrochronology, TL; Concept of Absolute (Chronometric) and Relative (Non-Chronometric) dating methods.

**Unit – III: Paleo-environment:** Concept of Geochronology, Geological Time scale - eras, periods, epochs, Environmental background of Quaternary period; causes of ice age.

Climatic fluctuations of Pleistocene period in Europe, Africa and India, Glacial and Pluvial zones, Evidences of Pleistocene period for reconstruction of paleo-environment - Moraine, Glacio-fluvial deposits, River terraces, U-shaped valley, Loess, Gravel and Silt deposition; Holocene period. Importance of paleo-environmental study in paleoanthropology and prehistory.

**Unit – IV: Typo-technological Study of Stone tools:** Concept of tool types, primary and combination fabrication technology, Basic concept of stone tool manufacturing technology and estimation of their relative efficiency, basic ideas about identification of core and flake tools.

**Unit – V: World prehistory:** Africa: The earliest Paleolithic assemblages of Africa - Oldowan, Acheulian; Middle Stone Age, Later Stone Age; Europe: Acheulian, Levalloisean, Middle and Upper Paleolithic Culture, Mesolithic Culture, Neolithic Culture. Prehistoric art (home and cave art); India: The earliest Paleolithic assemblages, Acheulian, Middle Paleolithic Culture, Upper Paleolithic, Micro-blade assemblages, Late Stone Age and Neolithic Culture, Megaliths.

Practical

credit- 2

**Unit – I:** Drawing and labelling of Tool types: Identification of Typo-technological attributes, cultural ages, probable functions, method of hafting, identification of cortex, flake scar, ripple mark, striking platform, point of impact, positive and negative bulb of percussion (wherever applicable):

- a. Lower Paleolithic Tools - Chopper/ Chopping Tools, Hand Axe, Cleaver.
- b. Middle Paleolithic Tools - Scraper, Knife, Point.

- c. Upper Paleolithic Tools - Blade, Core, Burin, Leaf Point, Baton de Commandment, Spear Thrower Harpoon Heads, Bone Points.
- d. Mesolithic Tools - Micro Blades, Cores, Lunates , Triangles, Trapeze.
- e. Neolithic Tools - Celt, Shouldered (T)-celt, Ring stone, Hammer stone, Sickle.

(In absence of original specimens, cast or distinct photographs may be utilized).

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## ANTA-DS-04: FUNDAMENTALS OF HUMAN ORIGIN AND EVOLUTION

### Theory

Credit- 3

**Unit – I: Palaeoanthropology:** Definition, aim & scope; Fossils - Process of fossilization, Significance of fossils.

**Unit – II: Oligocene Anthropoids:** Parapithecus, Aegyptopithecus; Primate origin and radiation with special reference to Miocene hominoids - Dryopithecus, Sivapithecus; Distribution, features and their phylogenetic relationships.

**Unit – III: Australopithecines:** Distribution and types, features and their phylogenetic relationships; Evolution & extinction of Australopithecines. Appearance of genus Homo (*Homo habilis*) morphological features and related finds; Phylogenetic status of *Homo habilis*.

**Unit – IV: *Homo erectus*:** Distribution, morphological features and phylogenetic status of Java Man, Peking Man.

**Unit – V: The origin of *Homo sapiens*:** Fossil evidences of Neanderthals; Anatomical & Morphological features of Neanderthals: La-Chapelle-Aux-saints, Tabun Man; Phylogenetic position. Archaic *Homo sapiens*: Anatomical features of Archaic *Homo sapiens*; Phylogenetic position of Archaic *Homo sapiens*.

**Unit – VI: Origin of modern humans (*Homo sapiens sapiens*):** Anatomically modern *Homo sapiens* (AMHS) - Cro-Magnon, Grimaldi, Chancelade – Distribution, features and their phylogenetic position.

**Unit – VII: Hominization process:** emphasis on Cranial capacity, Stereoscopic vision, Erect bipedalism, Opposable thumb & manual dexterity. Biological and cultural co-evolution of humans.

### Practical

Credit- 2

**Unit – I:** Identification of extant anthropoid skulls with reference to features relevant to Hominid evolution (Gorilla, Chimpanzee, Orangutan and Gibbon).

**Unit – II:** Identification of extinct anthropoid remains: Parapithecus mandible, Dryopithecus mandibular fragment, Australopithecus africanus, One typical specimen of *H. habilis*, *H. erectus* (Java and Peking man), *H. sapiens neanderthalensis* (La-Chapelle-aux-saints), *H. sapiens sapiens* (Cro-Magnon).

**In the absence of original specimen, cast, model or appropriate photograph may be used in the laboratory.**

**Unit – III: Craniometric Measurements (on at least three skull)**

#### 1. Chord:

- a. Frontal Chord,
- b. Parietal Chord,
- c. Occipital Chord.

#### 2. Arc:

- a. Frontal Arc,
- b. Parietal Arc,
- c. Occipital Arc.

**3. Angular:**

- a. Frontal profile angle,
- b. Nasal profile angle,
- c. Alveolar profile angle,
- d. Frontal angle of schwalbe.
- e. Bregma angle of schwalbe.
- f. Lambda angle of schwalbe.

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## SEMESTER - III

### ANTA-DS-05: TRIBES AND PEASANTS IN INDIA

Theory

Credit - 4

#### **Unit – I: Anthropological concept of tribe:**

##### **1. Traditional concept of tribe:**

- i. Tribe as pre-political and pre-contract society (Concept of L. H. Morgan & H. Maine);
- ii. Tribe in the evolutionary scheme of social type (Concept of Elman Service);
- iii. Concept of ST and PVTG.

##### **2. Features of tribes:**

- a. Economic features
- b. Political features
- c. Social-cultural features

##### **3. Indian tribes:**

- a. Indian tribes and their habitat – Regional, economic and linguistic distribution
- b. Demographic profile of Indian tribe in Eastern India (state-wise population distribution with respect to age and sex (Census 2001, 2011))

##### **4. Material Culture and Social Organization of specific tribes in India:** Santals, Garo, Toda, Chenchu, Lodha, Toto, Birhor

#### **Unit – II: Contemporary issues and problems of Indian tribes:**

1. The changing concept of Indian tribes;
2. Change in policy issues, Draft National Tribal Policy in India;
3. Acculturation, assimilation and integration of tribal society in India;
4. De-tribalization & Re-tribalization.

#### **Unit – III: Anthropological study of Peasants:**

1. Concept, definition and type of Peasantry
2. Approaches to the study of peasants – economic, political and cultural.
3. Caste and peasantry in India: Early, medieval origins and present situation.

#### **Unit – IV: Tribal Movements in India:** Santal Movement, Birsa Movement, Tebhaga Movement, Tana Bhagat movement and Jharkhand movement.

**Tutorial**

**Credit - 1**

The tutorial will include the separate class assignments from the above mentioned Units given by the concerned Department, and the records of which should be preserved in the Department.

## **ANTA-DS-06: HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS**

### **Theory**

**Credit 3**

**Unit – I:** Defining environment and ecology; Autecology & Synecology; Scope of Ecology; Ecosystem - Component of ecosystem, Functional & structural point of view of ecosystem; Habitat, Eco-system, Energy flow; Basic concepts of abiotic and biotic ecology.

**Unit – II:** Ecological rules and their applicability to human populations – Allen’s rule, Bergman’s rule, Gloger’s rule.

**Unit – III:** Concepts of acclimation & acclimatization; adaptation and adaptability; Eco-sensitivity & Adaptation; Environmental stress & Homeostasis; Adaptation to various ecological stressors: Temperature, Altitude and Nutrition; Impacts of urbanization and industrialization on human adaptation.

**Unit – IV:** Relation between ecology & disease: Adaptation to Communicable & Non-communicable diseases.

**Unit – V:** Cultural ecology: Julian Steward’s concept and application of the cultural ecological method; Ecological Anthropology; Ethno-ecology.

**Unit – VI:** Human Adaptation at the different levels of subsistence – hunting-gathering, horticulture, pastoralism, agriculture. Ecological themes of state formation: i. Neolithic revolution, ii. Hydraulic theory; Agriculture and peasantry; Industrial civilization and growth of urban societies.

### **Practical**

**Credit 2**

#### **Unit – I:**

##### **1. Somatometry (at-least 10 subjects)**

- i. Maximum head length
- ii. Maximum head breadth
- iii. Minimum frontal breadth
- iv. Maximum bizygomatic breadth
- v. Bigonial breadth
- vi. Nasal height
- vii. Nasal length
- viii. Nasal breadth
- ix. Morphological facial height
- x. Morphological upper facial height
- xi. Head circumference
- xii. Mid-upper arm circumference
- xiii. Calf circumference
- xiv. Stature
- xv. Sitting height
- xvi. Body weight

##### **2. Indices:**

- i. Body Mass Index,
- ii. Ponderal Index,
- iii. Relative Sitting Height.

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## ANTA-DS-07: BIOLOGICAL DIVERSITY IN HUMAN POPULATIONS

Theory

Credit- 3

**Unit – I: Concepts of Biological variability;** Categorization of People – Population, Mendelian Population, Race, Ethnic Group; Racism & Society

**Unit – II: Sources of Genetic variation** - Mutation, Crossing Over and Recombination, Gene flow (Migration and Hybridization), Genetic Drift, Selection (positive and negative) (only concept).

**Unit – III: Concept of Race:**

1. Conventional classification of major human races of the world – Caucasoid, Mongoloid, Negroid.
2. Anthropometric Characters (stature, cephalic index, nasal index);
3. Markers:
  - a. Polymorphic marker (ABO system, RhD system)
  - b. Polygenic markers (Dermatoglyphics)
  - c. Molecular Markers (overview of satellite DNA).
4. Classification of Indian population - H. H. Risley, B. S. Guha, and S. S. Sarkar (broad groups only), Balakrishnan's Classification.
5. UNESCO statement on Race.
6. Intra- and inter-population variation - Typological, Populational & Clinal model of Classification

**Unit – IV: Health and epidemiology:** Biological and cultural factors influencing disease pattern and nutritional status of population; Diseases – Kuru, Sickle cell anaemia, Lactose intolerance.

**Unit – V: Demographic Anthropology:** Demography – Introduction & Scope. Relationship of Demography with Anthropology. Sources of demographic data – National Census, Registration System, Surveys; Concepts of Population (Population Characteristics) – Age Structure, Natality, Mortality; Fundamental demographic measures and their significance in population dynamics – fertility (Crude Birth Rate (CBR), General Fertility Rate (GFR), Age-specific Fertility Rate (ASFR), Total Fertility Rate (TFR)), Mortality (Crude Death Rate (CDR), Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR)) and migration, sex ratio; Population pyramid.

Practical

Credit- 2

**Unit – I: Anthroposcopy (at-least 10 subjects):** Assessment of skin colour: exposed (forehead) and unexposed (inner surface of the upper arm). Head Hair: form, colour, texture, quantity, whorl (number and type), hair limit. Facial Hair: beard and moustache. Nose: depression of the nasal root, height of the nasal bridge, nasal profile, tip of the nose, inclination of the septum, nasal wings. Ear: size, shape, ear lobe (size, form and attachment), hypertrichosis of ear.

**Unit – II:** Construction and drawing of a population pyramid from secondary data and learning to interpret different types of population pyramids.

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## SEMESTER - IV

### ANTA-DS-08: THEORIES OF CULTURE AND SOCIETY

**Theory**

**Credit - 4**

**Unit – I:** Theory: Definition and importance of framing theory; Boundaries of theory; Importance of studying theory in Social Sciences at large and Social-Cultural Anthropology in particular.

**Unit – II:** Nineteenth Century Evolutionism: E. B. Tylor and L. H. Morgan. Neo-Evolutionism: L. White; Multilinear Evolution: Julian Steward; Diffusionism: British, American and German School.

**Unit – III:** Cultural Relativism, Historical Particularism: Franz Boas.

**Unit – IV:** Culture and Personality: Ruth Benedict, Margaret Mead; Cultural materialism: Marvin Harris.

**Unit – V:** Structural Approaches: Durkheim's Social Fact; Functionalism – B. Malinowski; Structural-functionalism - A. R. Radcliffe-Brown; Structuralism – Claude Levi- Strauss

**Unit – VI:** Symbolic and Interpretative approach: Clifford Geertz; Thick description.

**Tutorial**

**Credit – 1**

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## ANTA-DS-09: HUMAN GROWTH AND DEVELOPMENT

### Theory

Credit – 3

**Unit – I:** Concepts of human growth, development and maturation; Cellular processes: hyperplasia, hypertrophy and accretion.

**Unit – II:** Stages of human growth: Prenatal (egg, embryo, foetus) and Post natal (neonatal, infancy, childhood, adolescence, adulthood, senescence) (general characteristics);

**Unit – III:** Patterns of Human growth:

1. Distance and velocity growth curves (features and significance);
2. Chronological age and biological age;
3. Methods of studying human growth – cross-sectional, longitudinal, mixed and linked longitudinal: their significance & applicability;
4. Adolescent growth spurt;
5. Scammon's curves of systemic growth;
6. Variation from normal growth curve – Concepts of Canalization, Catch-up growth, Catch-down growth;
7. Growth reference, growth standard, growth chart.

**Unit – IV:** Biological and cultural factors (genetic, socio-cultural & ecological factors) influencing patterns of growth & variation. Secular trends (concept with reference to stature).

**Unit – V:** Health and Nutrition:

1. Concept of Balanced Diet; Malnutrition; Impact of malnutrition (over-nutrition & under-nutrition) with reference to Kwashiorkor and Marasmus.
2. Assessment of nutritional status: low birth weight, stunting, wasting and underweight in children;
3. Anthropometric assessment of malnutrition in adults (BMI).
4. Concept of z-score statistics with reference to MAM (Moderate Acute Malnutrition) and SAM (Severe Acute Malnutrition) in children.

**Unit – VI:** Concepts of body composition: fat patterning; brief introduction of models and techniques.

### Practical

Credit- 2

**Unit – I:** Calculation of z-scores of height and weight from a secondary data set of **at-least 20 subjects**

**Unit – II:** Determination of nutritional status by BMI and MUAC from the secondary data set of **at-least 20 subjects**.

**Unit – III:** Skinfold Measurement: biceps, triceps, subscapular, suprailiac, medial calf; Estimation of fat patterning by skinfold thicknesses as Duerenberg et al (1990) or analysis of fatness using Body Mass Index as Duerenberg et al (1991) Or any other standard method may be followed for analysis of fat patterning / fatness. (**at-least 10 subjects**).

(Analysis of the collected data by using basic Statistics: mean, median, mode, standard deviation and standard error).

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## **ANTA-DS-10: RESEARCH METHODOLOGY**

**Theory**

**Credit - 3**

**Unit – I:** Approach to Anthropological Research: Concept, overview and nature.

**Unit – II:** Research Design:

1. Definition & types of Research: Descriptive Research, Analytical Research, Exploratory Research, Explanatory Research, Diagnostic Research, Operational Research; Survey and ethnography.
2. Logical premises: Abductive, Inductive & Deductive.
3. Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis.
4. Types of Research Design: Experimental, Longitudinal, Cross-sectional, Case study, Case control study.
5. Sampling: types and uses.
6. Major Approaches in Research Methods: Synchronic & Diachronic, Etic & Emic, Comparative and Historical.
7. Qualitative research and quantitative research, their relationship and uses in anthropology.

**Unit – III:** Tools and techniques of data collection:

1. Techniques of rapport establishment: identification of representative categories of informants, maintenance of field diary and logbook.
2. Technical aspects of preparing questionnaire and interview schedule
3. Standardization of validity, sensitivity and reliability factors of the applicable tools
4. Observation - Direct, Indirect, Participant, Non-participant, Controlled.
5. Interview - Structured and unstructured, Focused Group Discussion.
6. Genealogy, Case Study and life history.

**Unit – IV:** Ethics of Research:

1. Identify, define, and analyze ethical issues in the context of research on human participant
2. Importance of consent, privacy and confidentiality in research

**Unit – V:** Data Analysis:

1. Nature of data: Quantitative and Qualitative; Discrete and Continuous variables; Tabulation of Data - Frequency distribution, Class interval and Class limit, Cumulative and relative frequencies; Graphical representations.
2. Data distribution: normal and others, z-distribution.
3. Measurements of Central tendency (Arithmetic Mean, Median, Mode) and Dispersion (Range, Variance, SD and SE of Mean), inferential statistics (Chi-square and students't-test).

**Unit – VI:** Writing Up:

1. Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, review and index.

**Practical**

**Credit - 2**

**Unit – I:** Project proposal writing - statement of the problem, literature review, hypothesis and objectives, study design, proposed analyses and expected outcomes and utility, references

**Unit – II:** Calculation of statistical measures, graphical representations from secondary data set as mentioned in Unit V, by software (any software available in the Department).

**Unit – III:** Learning to use a modern library and internet information, net-searching, use of INFLIBNET / *Sodhganga*, etc. Hands on demonstration in a library may be conducted (Laboratory Notebook should substantiate the work done by providing screen-shots of the learning process during the search processes).

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## SEMESTER – V

### ANTA-DS-11: HUMAN GENETICS

Theory

Credit- 3

#### Unit – I: Fundamentals:

1. The historical development of Human genetics – major milestones.
2. Outline of the methodology human genetics: Pedigree Method, Twin Method, Cytogenetics, Population genetics.
3. Mendelian Genetics: Principles of Segregation and Independent assortment, Genotype and Phenotype, Back cross and Test cross, Punnett square.
4. Patterns of inheritance: Autosomal Dominant, Autosomal Recessive, X-linked Dominant, X-linked Recessive and Y-linked inheritance in human.
5. Chromosomal aberrations - Numerical (Genome) & Structural (Genic).
6. Exceptions & Extensions to Mendelian Inheritance: Linkage (Sex linkage and sex influenced traits), Penetrance, Expressivity, Co-dominance, Multiple allele, Polygenic, Multifactorial, Pleiotropy, Epistasis and Genomic imprinting (concept only).

#### Unit – II: Ecological Genetics and Polymorphism

1. Concept of Phenotype and Genotype, Phenocopy and Genocopy.
2. Concept of Genetic Polymorphism: haplotypes & haplogroups; transient polymorphism and balanced polymorphisms. Models explaining the maintenance of genetic polymorphism with reference to Sickle cell trait and Malaria.

#### Unit – III: Equilibrium of allele frequency: Hardy-Weinberg principle

1. Genotype and allele frequencies.
2. Concept of Hardy-Weinberg equilibrium (algorithm), its applications and exceptions.

**Unit – IV: Dynamics of Allele Frequency: Evolutionary Forces** - Mutation, Selection (pattern and mechanism), Genetic drift (bottle neck and founder effect), Gene flow/migration, Admixture & Inbreeding (inbreeding co-efficient and its genetic consequences).

**Unit – V: Population structure and admixture in human populations:** Concept of Random and non-random mating (positive and negative assortative mating), linkage disequilibrium.

Practical

Credit- 2

**Unit – I:** Blood group typing - ABO blood group, Rh (D) blood group (**at-least 10 subjects**).

**Unit – II:** Color Blindness: Deutan and Protan type. (**at-least 10 subjects**)

**Unit – III:** Identification of Sex Chromatin (Inactivated X-Chromosomes): (**at-least 5 male & 5 female**)

**Unit – IV:** PTC taste testing ability: (**at-least 10 subjects**). Allele frequency estimation.

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## ANTA-DS-12: ANTHROPOLOGY IN PRACTICE

Theory

Credit: 3

**Unit – I: Applied Anthropology:** Definition, Aim and scope; Applied, Action and Development Anthropology – Definition and Distinctiveness; Historical Development and Empirical examples from projects. Overview on Modernization, Dependency and World Systems Theory of Development Issues.

**Unit – II: Role of Anthropology in Development:**

1. Introduction to the Concepts of Development Anthropology & Anthropology of Development; Sustainable Development – Meaning, Characters Concept of Development and Welfare;

2. Development of tribal communities in India in relation to Economic, Social, Educational, Health & Environmental concern (Development programmes); Role of NGOs in Development Anthropology.

**Unit – III: Constitutional Provisions and Human Rights:** Constitutional Safeguards for SC's, ST's & OBC's; Human Rights – Definition, Characters, Constitutional Provisions related to Human Rights; International citizen's chartered on Human rights; United Nation's Millennium Development Goal; Composition and function of International, National and State Human Right Commission; Human rights of special category and marginal groups & child.

**Unit – IV: Anthropology and Development in Indian Context:** Major tool used in rural development and management – Rapid Rural Appraisal and Participatory Rural Appraisal; Local self Government (Constitutional provisions, Composition, Electoral Process, Membership, Functions, importance in decentralization of power) - Rural (*Panchayati Raj System*), Urban (Municipality and Municipal Corporation).

**Unit – V: Managing the past:** Threats to Archaeological Remains (Global and Regional); Protection of Archaeological Remains - Laws (UNESCO and Indian Penal Provisions); Presenting the Past - The Political Use of Archaeology, Archaeology and Land Rights, Archaeology and Identity.

Practical

Credit – 2

**Unit – I:** A Project on Evaluation of any one Development Programme – Aim and Objective, Constitutional Provision, Concept and Functionaries, Available Data and any other relevant issues (based on secondary data source).

**Unit – II:** Student will visit nearest Gram Panchayat or Municipality Office and collect information about the Composition of the Board, Different Stake holders, Functionary Mechanism, various Developmental and Welfare Programmes adopted, Special initiatives taken by the body for the area under its jurisdiction and any other relevant anthropological issues.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

## SEMESTER – VI

### ANTA-DS-13: ANTHROPOLOGY OF INDIAN SOCIETY

**Theory**

**Credit: 4**

**Unit - I: Indian Anthropology:** Origin, history, growth and development of Anthropology (Mentioning Phases or Stages); Major Contributions of some Indian Anthropologists: S. C. Roy, I. Karve, D. N. Majumdar, N. K. Bose, M. N. Srinivas, L. P. Vidhyarthi, B. S. Guha and S. S. Sarkar, H. D. Sankalia;

**Unit - II:** Role of Asiatic Society, Anthropological Survey of India and Indian Anthropological Society in the development of Indian Anthropology.

**Unit - III: 1.** Village Studies in India: Concepts, features and types of village, Tradition and changes in Indian villages, Significance of village studies.

**2.** Contribution of some Indian Anthropologists to study Indian Villages - M. N. Srinivas, S. C. Dube, A. Beteille; Indian traditional social system: concept of Varna, Jati, Caste, Jajmani system.

**3.** Social Change: Concept, factor and reasons for social change, Concepts related to social change in India.

**4.** Basic Concepts: Great Tradition and Little Tradition, Universalization and Parochialization, Sanskritization and Westernization, Sacred Complex, Dominant Caste, Tribe-Case Continuum, Nature-Man-Spirit Complex, Industrialization, Urbanization, Culture Contact (Acculturation); The Hindu Method of Tribal Absorption.

**Tutorial**

**Credit -1**

The tutorial will include the separate class assignments from the above mentioned Units given by the concerned Department, and the records of which should be preserved in the Department.

## ANTA-DS-14: FIELDWORK

**Practical**

**Credit: 5**

Each student should undertake compulsory training for fieldwork on any community in any village or locality (tribal or multi-caste / multiethnic village) in India.

Duration: Not less than 12 days (excluding journey dates)

Before proceeding to fieldwork, at-least 15 hours' lecture should be arranged for theoretical preparation and methodological issues on fieldwork.

Guidelines for preparing the Field Report:

1. Relevance, Genesis and tradition of Field work in Anthropology,
  2. Approaches to the preparation of present field work.
  3. Aim and Objectives of the present study.
  4. Techniques of data collection (as per theory syllabus)
  5. General information of the study area.
  6. The village and the people (including their Demographic profile).
  7. Some aspects of material culture.
  8. Subsistence pattern and principal occupations with case studies.
  9. Local everyday markets *haat / bazaar*.
  10. Some aspects of Social Organization.
  11. Political organization (both traditional and modern).
  12. Life cycle rituals and ceremonies (with at least two case studies each): Birth, Marriage, Death Rituals.
  13. Local festivals.
  14. Impacts of development/ Welfare programmes: Problems and approaches-economy, health, education, infrastructure etc.
- Reference style: Any one standard form e.g., Chicago, APA, Harvard etc., to be followed uniformly throughout the report.

**N.B. Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Report submitted and viva-voce.**

## SEMESTER – VII

### ANTA-DS-15: FORENSIC ANTHROPOLOGY

Theory

Credit: 3

**Unit – I: Introduction to Forensic Anthropology:** Forensics - Definition, Brief history; Forensic Anthropology – Definition, Brief history, Scope and Application.

**Unit – II: Identification of Bones and Teeth:** Distinguishing bone & teeth from other materials; Identification of human and non-human skeletal remains; Attribution of ancestry; Age, Sex and Stature estimation from bones and footprints.

**Unit – III: Personal Identification:**

1. Complete and partial identification, methods of personal identification – application of anthropometry, anthroposcopy, occupational marks, scars, bite marks, tattoo marks, handwriting, deformities;
2. Dermatoglyphics and personal identification: History, development, scope and applications; Formation of fingerprint ridges, pattern types and patterns area; Palm Print: area, triradii, atd angle; Types of Fingerprints: Plastic, Visible and Latent Prints; Conventional and Modern methods for development of latent fingerprints; Recent advances: Fingerprint and Palm print Recognition, Automated Fingerprint Identification System.
3. Body Fluids and personal identification: Identification and individualization of bloodstain, urine, semen and saliva.

**Practical**

**Credit: 2**

**Unit – I:** Estimation of stature from long bones and footprints. Sex determination from human skull & pelvis. Estimation of age from teeth. (**at-least 2 samples**)

**Unit – II: Dermatoglyphics (at-least 5 subjects)** i) Finger dermatoglyphics: Identification of finger pattern types – Arch (Plain and Tented), Loop (Ulnar and Radial), Whorl (True, Twin loop, Lateral pocket loop, Central pocket loop), calculation of Pattern Intensity index. ii) Palmar dermatoglyphics: Identification of a, b, c, d, t triradii, Tracing of A, B, C, D Main Line, Main Line Formula, atd angle.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

## **ANTA-DS-16: PREHISTORIC CULTURE IN INDIA**

### **Theory**

**Credit: 3**

**Unit – I:** A brief historical perspective - from R. B. Foote till present.

**Unit – II:** Paleoenvironmental condition with special reference to Potwar Plateau and Kashmir, Son Valley, Narmada and Teri sites.

**Unit – III:** Survey of various cultural phases of Indian prehistory: Chronological phases and terminologies for the study of various cultural phases in different geographical regions.

**Unit – IV:** Lower Paleolithic Culture of India: Important sites and regions - Potwar plateau (works of de Terra and Paterson, current understanding), Rajasthan, Central and Southern India, Eastern India with special references to Bhimbetka, Attripakkam, Chotanagpur Plateau.

**Unit – V:** Middle Paleolithic culture of India: Concept of Flake tool culture complex with special references to Bellan Valley, Nevasa and Narmada Valley.

**Unit – VI:** Upper Paleolithic Culture of India: Special references to Patan, Kurnool caves, Bagor and Tilwara, Sarai Naghar Rai. Upper Paleolithic Problem of India.

**Unit – VII:** Microlithic Culture of India: Special reference to Bagor, Langhnaj, Birbhanpur, Teri Sites, Adamgarh, Bhimbetka, Sarai Nahar Rai, Microlithic rock art of India.

**Unit – VIII:** Neolithic Culture of India: North India - Burzahom, South India- Bellary, Brahmagiri, Sanganakallu, Tekkalakota; Eastern and North-Eastern India - Assam, Deojali hading, Bengal-Bihar-Orissa Culture Complex, Neolithic culture of North West India - Kill-gul-Mohammad, Mahergarh beginning of village economy etc.

### **Practical**

**Credit: 2**

**Unit – I:** Toposheet Study (Ideas about scale, topo-sheet number and their meaning, ideas on making contour section from topo-sheet, assessment of vegetation cover, drainage pattern etc.)

**Unit – II:** Learning the use of Remote Sensing and GIS (Use of free RS/GIS software like Google Earth and/or ISRO Bhuvan)

**Unit – III:** Field Exploration (at least THREE days excluding dates of journey): Students will be taken to field to study the geomorphological features (river terraces, exposed stratigraphic sections, hill, streams, soil types and other physical features of the area along with measurements wherever applicable) with the use of Topographic maps/ GPS and Grid methods. Preference should be given to known archaeological sites of India.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

## **ANTA-DS-17: TRIBAL SITUATION IN INDIA**

**Theory**

**Credit: 4**

**Unit – I: Tribe, Tribality and Tribalism:** Theoretical Issues – Tribal Identity & Politics: Tribe & Ethnicity in Nation-State. National Commission for ST's. Tribes and Indian Constitution.

**Unit – II:** Anthropological Approach to Tribal Development – pre-independent and post-independent period; Concept of different tribal development programmes in India (ITDP, TRYSEM, TSP, LAMPS, NREGA, EMRS, Ashram School);

**Unit –III:** Forest & Tribe: Forest policies and tribes; Land alienation; Migration and occupational shift;

**Unit – IV:** Tribal arts and aesthetics: Regional variation, Tribal Museums in India.

**Unit – V:** Tribal Displacement and Rehabilitation Problem, Role of Anthropologists in tribal welfare. Problems of exploitation and deprivation of Scheduled caste and Scheduled Tribe and other Backward Classes.; Impact of Globalization among Indian tribes.

**Unit – VI:** Agencies: Ministry of Tribal Affairs, Tribal Research Institutes.

**Tutorial**

**Credit: 1**

The tutorial will include the separate class assignments from the above mentioned Units given by the concerned Department, and the records of which should be preserved in the Department.

**SEMESTER VIII**  
**ANTA-DS-18: ANTHROPOLOGY OF HEALTH**  
**Theory** **Credit: 4**

**Unit – I: Introduction and Overview of the Field of Anthropology & Health:** The unique place of anthropology in health science; Concepts of Health, Illness, Sickness, Healing and Disease in modern science and in cross-cultural perspective; Bio-medical versus naturalistic approaches; Limitations of modern health promotion and health care delivery programmes: family planning, child health and nutrition, immunization; Medical anthropological perspectives of health; Theoretical and applied medical anthropology;

**Unit – II: Cultural Dimensions of health:** Application of concepts of culture in population health – sick role models, variation in health seeking and health care practices; Culture competence and responsiveness in health care practice.

**Unit – III: Measuring population / community health:** Concepts of epidemiology, cultural epidemiology, morbidity and mortality; Epidemiology of diseases: Malaria, Tuberculosis, Leprosy, Diabetes, Cardiovascular disease, Sexually Transmitted Diseases (STDs), HIV/AIDS. Zoonotic disease and Pandemic: Ebola, Covid-19.

**Unit – IV: Healing and Healers in Cross-Cultural Perspectives:** Medical pluralism, Folk healers and alternative medicine, Shaman, Magic, Witchcraft and Sorcery, Ethnomedicine; Problems in evaluating efficacy; Sources of dissatisfaction with mainstream medicine.

**Unit – V: Legal Aspects & Future Prospects for Health:** International health organizations and policies; Critical issues in global health; Medical Ethics.

**Tutorial**

**Credit: 1**

The tutorial will include the separate class assignments from the above mentioned Units given by the concerned Department, and the records of which should be preserved in the Department.

**ANTA-DS-19: RURAL AND URBAN ANTHROPOLOGY**  
**Theory** **Credit: 4**

**Unit – I: RURAL ANTHROPOLOGY**

1. Definition, Aim and Scope; Village Studies in India - Village as Unit of Indian Civilization, Historical genesis of Village Studies in India.
2. Village Community: Definition, Features and Changing perspectives;
3. Agrarian Social Structure, Agrarian Unrest & Changing Rural Society: Concept of Agrarian Social Structure, Faction. Meaning of land tenure system and land reforms in India.
4. Peasant Movements in India: Moplah Rebellion (1921); Naxalbari Struggle; Other Contemporary peasant struggles.
5. Changing Rural Society: factors - impacts of urbanization, industrialization and modernization; Contemporary Rural – Cultural Changes.

**Unit – II: URBAN ANTHROPOLOGY**

1. Definition, Aim and Scope; Introducing the Concepts - Urban, Urbanism & Urbanization; Urbanization Process (Primary & Secondary) & Anthropology of Urbanization; Historical discourse & Contemporary situation; Origin & Types of Cities; Cultural Role of Cities.
2. Methodological Issues & New Developments: Urban ethnography - concepts and methods, attribute analysis; Structural and functional paradigm of urban anthropology; Introducing contemporary urban issues - Urban space, Urban poverty, Urban inequality, Urban class; Urban ecology.

**Tutorial**

**Credit: 1**

The tutorial will include the separate class assignments from the above mentioned Units given by the concerned Department, and the records of which should be preserved in the Department.

## **ANTA-DS-20: PROTO-HISTORIC CULTURE IN INDIA**

### **Theory**

**Credit – 3**

**Unit – I:** Chalcolithic Culture of India: Use of Metal, Technology, Tools and Pottery, Central Indian Kayatha Culture, Ahar Culture, Northern Deccan - Malwa and Jorwe Culture.

**Unit – II:** Early Civilization: Origin and development of Harappan Civilization, Geographical distribution, extent and settlement pattern, Important excavated sites, Town Planning and Architecture, Trade, Economy, Technology and Art, Script, Socio-political and religious life, Decline- various causes.

**Unit – III:** Beginning of Iron age and second Urbanization: Black and Red Ware culture (BRW), Painted Grey Culture (PGW), Northern Black Polished Ware culture (NBPW), Megalithic burial types- Menhirs, Dolmens, Alignments, Cairn Circle, Rock Cut Caves, Umbrella Stones (Kodakkal), Cists etc; Living megalith tradition.

**Unit – IV:** Brief ideas about preservation of cultural heritage of India.

### **Practical**

**Credit - 2**

**Unit – I:** Museum Visit: Report to be prepared based on the observations during museum visit related to museum specimens – their description, preservation and curation.

**Unit – II:** Heritage Management Programme: Students will visit nearest heritage building/ cemeteries/ monuments and evaluate stages of preservation and maintenance, mode of protection and preservation of heritage buildings and shall have empirical idea on heritage protection and management.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

## **ANTA-DS-21: PHYSIOLOGICAL ANTHROPOLOGY**

**Theory**

**Credit: 4**

**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:** 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, and health related fitness in sex and ethnic group.

**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:** Concepts of body constitution: Somatotyping & Human Physique with reference to Sheldon, Parnell, Heath-Carter (overview);

**Unit – V:** Factors affecting physical performance and capacity, relation between physique, body composition, nutrition and performance. Ageing and health related aspects.

**Practical**

**Credit: 2**

**Unit – I:** Cardiovascular function (Measuring Blood pressure, pulse rate) (**at-least 10 subjects**)

**Unit – II:** Somatotyping: Heath-Carter method (**at-least 10 subjects**)

**Unit – III:** Measurement of Human Body Composition: general obesity, regional obesity (**at-least 10 subjects**)

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

ANTA-DS-xxx: DISSERTATION  
Practical credit 15

(AS PER WBSU GUIDELINES)

A student selected for pursuing 4-year honours with Research Programme is required to complete a research project and submit a dissertation to the University for Examination and Evaluation in the Eighth Semester. Student is supposed to undertake fieldwork for at least six weeks in order to collect primary data. Topics of the Dissertation will be decided by the student in consultation with the concerned supervisor(s). Students are to submit 2 typed / hand-written copies of the thesis duly forwarded by the supervisor(s) at least three days before the date of Examination to the Department of Anthropology, West Bengal State University, Barasat OR as notified. Students will also make presentation based on such studies before the examiners. They will be evaluated on the basis of fieldwork, report, presentation and viva-voce.

**1<sup>ST</sup> YEAR (as minor courses) / 1<sup>ST</sup> SEMESTER (for multidisciplinary programme)**

## ANTG-M-01: INTRODUCTION TO ANTHROPOLOGY

Theory

Credit 3

**Unit – I: Introducing Anthropology:** Definition, aim, scope & branches; History of Anthropology – Global & Indian perspectives; Anthropological Perspectives - Holism, Cross-cultural Comparison and Fieldwork. Application of anthropological knowledge.

**Unit – II: Archaeological Anthropology:** Introduction to archeological anthropology - definition, aim, scope & application, it's relation to anthropology, palaeoanthropology, history, prehistory and historical archeology; Brief history of archeology. Brief idea of tool, artifact, industry, assemblage. Brief idea of palaeo-environment; Reconstructing the past - environmental archeology, experimental archeology, ethno-archeology;

**Unit – III: Biological Anthropology:** Definition, aim, scope, branches and applied areas of Biological Anthropology; Relationship with Human Biology and Medicine. Morphology – Somatoscopic Features (skin colour, scalp hair, nose & ear); Skeletal system – Definition: structure and function; Types of bones - name, number and position of bones of human skeleton; Modifications of human skeleton as consequences of evolution – bipedal erect posture. Human Dentition (types and salient Features); Dental Formula (Deciduous and Permanent).

**Unit – IV: Social-cultural Anthropology:** Definitions, aim, scope and objective; Ethnography & Ethnology; Relationship with economics, political science, sociology, history, psychology. Concept of culture: Definition and types of culture (material and non-material), features of culture, socialization, culture shock, enculturation, functions of culture; Material Culture: Types and functions of various forms of hunting, fishing and agricultural implements used in different environmental background. Concept of society: Society, group, community, structure, organization, system, institution. Relationship between Society and Culture.

Practical

Credit 2

**Unit – I: Archaeological Anthropology:** Basic ideas about identification of stone tools (differences between naturally flaked objects and stone tools on the basis of location, direction and number of flake scars, shape); core and flake tools (identification of cortex, flake scar, ripple mark, striking platform, point of impact, positive and negative bulb of percussion, drawing of linear diagram).

**Unit – II: Biological Anthropology: Anthroposcopy:** Assessment of Skin Colour: exposed (forehead) and unexposed (inner surface of the upper arm). Scalp Hair: form, texture, whorl (number and type). Nose: depression of the nasal root, nasal profile, tip of the nose, inclination of the nasal septum, nasal wings. Ear: Lobe attachment, hypertrichosis of Ear (**at-least 5 subjects**).

**Unit – III: Social-cultural Anthropology: Project work:** Preparation of enumeration (census) form and applying it on **at-least 10 families** in any nearby locality (family composition, socio-economic status: occupation and education); A comprehensive brief report on this study to be prepared by the student and submit.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

**2<sup>ND</sup> YEAR (as minor courses) / 2<sup>nd</sup> SEMESTER (for multidisciplinary programme)**

**ANTG-M-02: FUNDAMENTALS OF ANTHROPOLOGY**

**Theory**

**Credit 3**

**Unit – I: Archaeological Anthropology:** Concept of culture in prehistory; Brief introduction to different cultural stages in pre-history and proto-history; General introduction to cultural chronology. Identification and description of stone and bone tools; Different tool making technologies – Direct percussion - block on block, block on anvil; indirect percussion – controlled flaking, fluting, step flaking, pressure flaking; grinding & polishing. Field techniques - exploration, excavation; Dating methods - concept and importance of chronology in archeology; absolute and relative dating methods - C14, K/Ar, stratigraphy and river terraces.

**Unit – II: Biological Anthropology:** Living primates:

1. Definition (Mivart) and general characteristic features of order Primates.
2. Evolutionary trends of the Primates – dentition, limb & locomotion, senses & brain, manual dexterity.
3. Classification of the order Primates – Simpson (1917) and example up to family.
4. Platyrrhine and Catarrhine monkeys – distribution, characteristics and differences.
5. Anthropoid apes: Features, classification, distribution, and social behavior (Chimpanzee & Oragutan).
6. Skeletal comparison of anthropoid apes with that of man (skull, vertebral column & hind limb)

**Unit – III: Social-cultural Anthropology:**

Marriage - Definition, Types & Regulations (Preferential, Prescribed And Incest taboos), Marital transactions (Dowry and Bride price);

Family – Definition, Types & Function of family;

Kinship – Definition & Functions; Types (Bilineal, Ambilineal, Unilateral, Bilateral); Classification of kin, Kinship terminology; Concept of Clan, Phratry, Moiety, Lineage.

Types of Economy: Hunting-Gathering, Pastoralism, Shifting Hill Cultivation, Settled Cultivation. Political Organization: Definition and Concept, Band, Tribe, Chiefdom, State, Primitive Law and Sanction.

Religion: Definition and Concept, Animism, Animatism, Manaism, Totemism, Magic and Religion.

**Practical**

**Credit 2**

**Unit – I: Archaeological Anthropology:** Procedure of drawing tools, drawing and labelling of typo-technological features, cultural age, probable use and method of hafting of tools (Core tools: Hand axe, cleaver and chopper) (Flake tools: Scraper, point, blade) (Bone tools: Harpoons, Baton-de-commandement, spear thrower) (Microliths: Bladelet, fluted core, lunate) (Polished tools: celt, ring stone) N.B. In absence of original specimen cast, photograph may be used with references.

**Unit – II: Biological Anthropology:** Human Anatomy - Identification of human skull. Identification of human skull bones: frontal, parietal, temporal, occipital, zygomatic, maxilla, mandible, sphenoid. Identification of Human post-cranial bones: Scapula, Clavicle, Humerus, Radius, Ulna, Pelvis, Femur, Tibia, Fibula (anatomical position and side determination, where

applicable) Skull and pelvic girdle should be studied in the perspective of sex differences. Identification of Human permanent teeth.

**Unit – III: Social-cultural Anthropology:** Learning the technique and collection of genealogical data, preparation of a typical genealogical diagram and table (including analysis: occupational and educational status) of one's own family (at least three generations). A report to be prepared and submitted.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

**3<sup>RD</sup> YEAR (as minor courses) / 3<sup>rd</sup> SEMESTER (for multidisciplinary programme)**

**ANTG-M-03: APPLICATIONS OF ANTHROPOLOGY**

**Theory**

**Credit 3**

**Unit – I: Archaeological Anthropology:**

A brief history of Indian prehistory.

Palaeolithic in India with emphasis to North India – Sohan river valley;

Microlithic cultures of India – Central India;

Neolithic cultures of India – North-East India;

Megalithic culture of India – North-East India;

Earliest Civilizations: Harappan civilizations;

**Unit – II: Biological Anthropology:**

Hominization process - expansion of the brain, reduction of the face, teeth and jaws;

Australopithecines - distribution and types, features and their phylogenetic relationships;

Appearance of genus Homo (*Homo habilis*): features and their phylogenetic relationships;

*Homo erectus* from Asia - distribution, features and their phylogenetic status – Java Man, Peking Man

*Homo sapiens*: Fossil evidences of Neanderthals - Classic Neanderthals (La-Chapelle-Aux-saints), Progressive Neanderthals (Tabun); Archaic *Homo sapiens* - Phylogenetic relationship;

Origin of anatomically modern *Homo sapiens* (*Homo sapiens sapiens*): Cro-Magnon, Grimaldi, Chancelade - Distribution and features and their phylogenetic status.

**Unit – III: Social-cultural Anthropology:** Applied, Action and Development Anthropology - definition, meaning, distinct features and historical development. Problems related to land, forest, occupation, education and health of the indigenous communities in India; Tribal Displacement and Rehabilitation Problem; Cause and effect of displacement and concept of rehabilitation. Role of Anthropologists in Tribal Development.

**Practical**

**Credit 2**

**Unit – I: Craniometry (at-least three skulls):**

Students should know the landmarks, instruments related to it.

1. Maximum cranial length,
2. Maximum crania breadth,
3. Least Frontal breadth,
4. Maximum bi-zygomatic breadth,
5. Nasal length,
6. Nasal breadth,
7. Superior Facial Length
8. Measurements on Mandible:
  - i. Bi-condylar breadth,
  - ii. Bi-gonial breadth,
  - iii. Length of the mandible.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

**4<sup>TH</sup> YEAR (as minor courses) / 4<sup>th</sup> SEMESTER (for multidisciplinary programme)**

**ANTG-M-04: HUMAN DIVERSITY: BIOLOGICAL & CULTURAL DIMENSIONS**  
**Theory** **Credit 3**

**Unit – I: Biological Anthropology:** Population of World - Concept of Race & Ethnic Group; Population variation - Typological, Populational & Clinal model of Classification; Criteria for population classification - (Skin colour, Scalp hair and ABO blood groups); Ethnic composition of the population of undivided India by H. H. Risley, B. S. Guha and S. S. Sarkar. UNESCO statement of race; Human adaptation and acclimatization - hot, cold, altitude.

**Unit – II: Social-cultural Anthropology:** Concept of Tribe; Indian tribes - an outline of anthropological studies, distribution according to linguistic groups, economy, geographical region; Concept of PVTG; Backward Communities in India and Development; Constitutional safeguards for SC, ST and OBC. Material Culture & Social organization - Garo, Santal, Chenchu, Toda.

**Practical**

**Credit 2**

**Unit – I: Biological Anthropology:** Genetic tests (**at-least three subjects**)

(a) ABO and Rh (D) blood group systems

(b) Test for colour blindness

(c) PTC / PTU tasting ability: Students should be trained to test PTC/PTU tasting ability following standard method.

**Unit – II: Social-cultural Anthropology:** Preparation of a brief report on geographical distribution of tribal population of India (not less than 500 words) along with Location of different tribes on the map of India

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

**5<sup>th</sup> SEMESTER (for multidisciplinary programme)**

**ANTG-M-05: HUMAN GROWTH & DEVELOPMENT**

**Theory**

**Credit 3**

**Unit I:** Concept of human growth, development and maturation. Biological and cultural factors (genetic, socio-cultural & ecological factors) influencing growth.

**Unit II:** Methods of studying human growth and development: Cross-sectional, Longitudinal, Mixed longitudinal, Linked longitudinal.

**Unit III:** Stages of growth: Prenatal and Post natal period of growth (general characteristics).

**Unit IV:** Growth curves: Distance, Velocity, Scammon's curves of systemic growth; Concepts of Canalization, Catch-up growth, Growth spurt.

**Unit V:** Community Nutrition and Nutritional Anthropometry: Malnutrition; Nutritional status – over and under nutrition, Kwashiorkor, Marasmus.

**Unit VI:** Somatotyping and human physique (Heath-Carter)

**Practical**

**Credit 2**

**Unit – I:** Growth status - Somatometry (**at-least 5 subjects**):

1. **Linear measurements:** maximum head length, maximum head breadth, least frontal diameter, bi-zygomatic diameter, morphological facial height, morphological superior facial height, nasal length, nasal breadth, nasal depth, height vertex, bi-acromial diameter, hand length, hand breadth, foot length, foot breadth, body weight.
2. **Circumference:** head circumference, MUAC, calf circumference.
3. **Indices** (classification where applicable): cephalic index, morphological facial index, morphological upper facial index, nasal index, jugo- frontal index, BMI.

**N.B. Laboratory Note-Book/ Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

**6<sup>th</sup> SEMESTER (for multidisciplinary programme)**

**ANTG-M-04: RESEARCH METHODOLOGY**

**Theory**

**Credit 3**

**Unit – I: Research Design (Introduction):**

1. Definition & types of Research: Descriptive, Analytical, Exploratory, Diagnostic.
2. Review of literature, formulation of research problem.
3. Types of Research Design: Experimental, Longitudinal, Cross-sectional, Case Study, Case-Controlled
4. Sampling: types (probabilistic and non-probabilistic) and uses.
5. Major Approaches in Research Methods - Synchronic & Diachronic, Etic & Emic, Inductive & Deductive, Comparative and Historical Method
6. Methods of Data Collection: Observation - Direct, Indirect, Participant, Non-participant, Controlled Interview - Structured and unstructured, Focused Group Discussion, Case Study and Genealogy.
7. **Statistics for Anthropology:** i. Types of variables - Qualitative and Quantitative Data; presentation and summarization of data (tabulation and illustration), Graphical representation; Normal and binomial distribution. ii. Descriptive statistics – Arithmetic Mean, Median, Mode, Variance and standard deviation.

**Practical**

**Credit 2**

**Unit – I: Fieldwork (Duration: 5-6 days, excluding journey period)**

Each student should undertake compulsory field training on any community in any village or locality (tribal or multi caste village). Before proceeding to field work, at-least 10 class hours should be arranged for theoretical preparation and methodological issues on fieldwork. The student will be evaluated on the basis of the report submitted and viva-voce.

Focal theme of Field work:

- i. Importance of Fieldwork in Anthropology.
- ii. Method / Techniques of fieldwork.
- iii. General features of the Village / Area (including Layout).
- iv. Household survey of the village/ hamlet/ locality/ community seeking primary information on age-sex, education, occupation (primary & secondary), marital status, family size & Type. (with descriptive statistical representation)
- v. Economic pursuit: General description of the economic pursuits along with One case study on the economy practiced by the studied community (Agriculture, Fishing. Handicraft etc).
- vi. Outline of social-cultural life of the village community.
- vii. Development & Welfare programmes & its impact on the community studied.

**N.B. Report duly signed and/or forwarded by the teacher(s) / HoD should be submitted before practical examinations for evaluation. The student will be evaluated on the basis of the Laboratory Note-Book/ Report submitted and viva-voce.**

**4<sup>TH</sup> SEMESTER: SEC 1: PUBLIC HEALTH & EPIDEMIOLOGY**  
**Theory** **Credit 3**

**Unit – I: Principles of Epidemiology in Public Health:** Definitions and scopes of Public Health and Epidemiology; Social-cultural determinants, policies, and practices associated with public health; Cultural, social, behavioural, psychological and economic factors that influence health and illness

**Unit – II: Health and Culture:** Bio-medical versus naturalistic approaches; limitations of modern health promotion and health care delivery programmes: family planning, child health and nutrition, immunization; Application of concepts of culture in epidemiology and public health, Cultural epidemiology.

**Unit – III: Epidemiology of disease:** understanding etiology of communicable and non-communicable diseases: Malaria, STD, HIV/AIDS, Diabetes, Cancer, Cardiovascular diseases, Mental and emotional disorders, zoonotic disease and pandemic (Ebola and Covid-19); determining change in trend over time: prevalence and incidence; implementation of control measures;

**5<sup>TH</sup> SEMESTER: SEC2: TOURISM ANTHROPOLOGY**

**Theory**

**Credit 3**

**Unit – I: Concept of Anthropology of Tourism:** aspects and prospects, anthropological issues and theoretical concerns, tourist as ethnographer; pilgrimage and Authenticity Issues.

**Unit – II: Past and present of Anthropology of Tourism:** 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: Implications of tourism as a major mechanism of cross-cultural interaction;** tourism and the commodification of culture, culture change, Globalization, Tourism and Terrorism.

**Unit – IV: New Directions in the Anthropology of Tourism:** applied aspects of anthropology in tourism development and planning, Ecotourism and sustainable development, role of museums and other branches of the cultural industries (including music, art, and food) in tourism economies.

**6<sup>TH</sup> SEMESTER: SEC3: MEDIA ANTHROPOLOGY**  
**Theory** **Credit 3**

**Unit I:** Introduction to Media Anthropology: its objectives and scope, history and evolution of media, technology and media, media and production of material object.

**Unit II:** Social sites of film and TV production, exigencies of commercial filmmaking, constraints of television production, journalism and advertising, indigenous media and cultural activism, social media and youths.

**MULTIDISCIPLINARY COURSE: ANTHROPOLOGY**  
**Theory** **Credit 3**

**Unit – I: Introducing Anthropology:** Definition, aim, scope & branches; History of Anthropology – Global & Indian perspectives; Anthropological Perspectives - Holism, Cross-cultural Comparison and Fieldwork. Application of anthropological knowledge.

**Unit – II: Biological Anthropology:** Definition, aim, scope, branches of Biological Anthropology; Man's place in animal kingdom;  
Major stages of hominid evolution – Australopithecines, Homo habilis, Homo erectus, Neanderthals, Cromagnon (characters, phylogenetic position and distributions only);  
Human variation: Biological basis of inheritance, Mendelian inheritance in man (Brief idea), Race and racism, Three Major division of mankind (Morphology and distribution only), Classification of Indian population- Risley, Guha, Sarkar.

**Unit – III: Archaeological Anthropology:** Introduction to archeological anthropology - definition, aim, scope & application, it's relation to anthropology, palaeoanthropology, history, prehistory;  
Brief idea of tool, artifact, industry, assemblage.  
Major stages of Prehistoric culture – Palaeolithic, Mesolithic, Neolithic.

**Unit – IV: Social-cultural Anthropology:** Definitions, aim, scope and objective; Concept, features and types of culture.  
Material Culture: Types and functions of various forms of hunting, fishing and agricultural implements used in different environmental background.  
Concept of society: Society, group, community, structure, organization, system, institution.  
Social Organization: units & institutions; Family: concepts, features, types and functions. Clan: definition and types; Marriage: concept, types, rules of marriage;  
Religion: concept, types- animism, animatism.