

ORIENTAL COLLEGE (AUTONOMOUS), IMPHAL
DEPARTMENT OF ANTHROPOLOGY

Choice Based Credit System Syllabus For

B.Sc. ANTHROPOLOGY (Hons)

(A draft approved by the Board of Studies for implementing from 2020-21 Session)

Submitted by

HOD / Chairperson of BoS

Department of Anthropology

Approved by the Academic Council and the Governing Body

Outline of Choice Based Credit System:

1. **Core Course:** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

2. **Elective Course:** Generally a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.

2.1 Discipline Specific Elective (DSE) Course: Elective courses which may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. The University/Institute may also offer discipline related Elective courses of interdisciplinary nature (to be offered by main discipline/subject of study).

2.2 Dissertation/Project: An elective course designed to acquire special/advanced knowledge, such as supplement study/support study to a project work, and a candidate studying such a course on his own with an advisory support by a teacher/faculty member is called dissertation/project.

2.3 Generic Elective (GE) Course: An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called a Generic Elective.

P.S.: A core course offered in a discipline/subject may be treated as an elective by other discipline/subject and vice versa and such electives may also be referred to as Generic Elective.

3. **Ability Enhancement Courses (AEC):** The Ability Enhancement (AE) Courses may be of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). "AECC" courses are the courses based upon the content that leads to Knowledge enhancement; i. Environmental Science and ii. English/MIL Communication. These are mandatory for all disciplines. SEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

3.1 Ability Enhancement Compulsory Courses (AECC): Environmental Science, English Communication/MIL Communication.

3.2 Skill Enhancement Courses (SEC): These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.

Programme Objectives: The curriculum of Undergraduate Degree in Anthropology (Hons.) is designed, in compliance with UGC guideline of choice based credit system, to offer a uniform structure and an array of options in the programme. It offers a wide choice of papers covering theoretical, practical, skill enhancement and applied aspects of the discipline. It is designed to cover both traditional and contemporary framework of study, thus giving a wide scope to the learners to apply their knowledge and skills in real scenarios. Teaching-learning methods have also given emphasis more on demonstrative techniques and learner oriented mode than the traditional lecture and note delivery mode.

The main objective of the programme is to develop an aptitude towards erudition that is rich in its content as well as to deliver the needs of the contemporary society and industry. The curriculum has been carefully designed to include conceptual, practical, experimental and skill building component so that the learners may acquire the required quality for job and higher studies.

This curriculum encompasses the evolution of the subject right from the days of Plato and Aristotle to the progression towards establishment of the discipline and to the modern state of science of anthropology. The core and fundamental branches of the discipline cover the three broad spectrums of physical, social-cultural anthropology and Prehistoric archaeology along with the interface branch of environment and ecology.

Practical & Application Oriented: To enrich the process of knowledge dissemination, varied tools and technique oriented papers have also been incorporated in the curriculum. It includes somatometry, somatoscopy, dermatoglyphics, serology and the use of sophisticated methods of quantitative and qualitative data collection and processing through exhaustive field work with basic statistics treatment.

In addition to this, the applied aspect has also been integrated in the syllabus for skill enhancement and capacity building. Laboratory and project based learning are important constituents of these papers. Hands on learning, making use of various tools, equipment and software are essential mechanism for knowledge transfer. There has been focus on student centric education that involves an exploratory approach and gaining proficiency by learning both inside and outside their classrooms.

Regional Approach: In most of the papers regional dimensions are added through theoretical case studies and field excursions. Along with the global and national dimensions of man and culture that are covered in the content of the papers, the study of Indian anthropology, purely caters to regional and local approach to the understanding.

Academic Attributes:

Some of the characteristic attributes of an Honours graduate in Anthropology include:

- **Disciplinary Knowledge:** Students gains in-depth knowledge of basic and applied areas of Anthropology. Core and discipline specific courses train them in fundamental branches and aspects of the subject. Technical and skill courses help them to learn tools and techniques as well as career enhancement. Anthropology student gets a unique opportunity to experiment in fieldwork.
- **Communication Skills:** Students develops effective communication and soft skills through oral presentations like seminars, and group discussions on the subject content. Besides interviewing people, field surveys and public dealing with different cadre of people makes him/her confident in communication and handling situation. The data processing, analyzing and compiling and presenting in the form of reports enhances written communication skills.
- **Critical Thinking:** The subject creates scientific and logical aptitude, and approaches a problem through critical reasoning. The course content enables to stimulate the questioning capacity for what, where, who, when and how. The papers like Biological Anthropology, Archaeological Anthropology , Biological Diversity in Human Population, to name a few.
- **Problem Solving:** The understanding about surroundings, the issues that concerns man and culture, humanity or human society, applied aspect of anthropology etc. makes students learn to look for solutions. Anthropology has relevance to day-to-day social life and to ever dynamic ethnic relations and problems.
- **Analytical Reasoning:** The anthropology course contains a variety of tools, techniques and data handling which develop analytical reasoning to solve issues. The courses are meant to develop the analytical reasoning, mining of first-hand information through direct observation, measurement and documentation comparative analysis and inferences to arrive at generalisations
- **Research Related Skills:** The course content trains students to learn basic research design, data collection process, and ethics to conduct research work through field work. The specially developed course on research methodology and field work acquaint them to prepare questionnaires, selecting sample plans, identifying right kind of objectives, data collection methods, field exposure, mental mapping, reproducing the observations, analysis and finally to prepare reports.

- **Cooperation/ Teamwork:** The course enables to develop skill to work with students of diverse backgrounds. Cooperation on same topic will increase better understanding. The group assignments involving analysis and presentation are essential elements in the course design that will inculcate the team spirits. The field expeditions and help to develop great bonding, working and executing the plans on ground.
- **Scientific Reasoning:** Course will develop critical analysis of theories and models, raising critical questions on the theories and models, developing hypothesis and learning their testing. Many of the courses in anthropology which are truly scientific in nature will generate scientific reasoning aptitude and also skills to look towards new approaches.
- **Information and Digital Library:** The student of anthropology is always encouraged to explore beyond the basic textbooks. Besides availability of all types of reading material, a student needs to invest in learning and consulting from various open source library to expand the vista of their knowledge acquiring capability. Since it is a subject that does not completely rely on traditional text book oriented studies but has to delve deeper and research enough to keep pace with the ever-changing world. Thus the World Wide Web has proved to be very useful in keeping oneself appraised and continuously update ones knowledge base. The usage of open source software, tools and open access reading material are part of the curriculum which will train them for digital world.
- **Multicultural Competence:** Anthropology is a discipline which is not limited to any specific time or space. Its identity is based on multi-plural, multi-cultural and multi sited- ethnography. As a subject it emphasizes on regional and cultural studies which involves detailed understanding of places and perceptions. Also as a disciplinarian, it allows the learner to learn about both their own culture as well as those of their distant counterparts. This diversified knowledge also helps them to respect all fellows following varied community norms, traditions and practices. Field studies have been much helpful in introducing multicultural competencies to students of the subject.
- **Moral and ethical awareness:** Today is the age in which the social order of the national state, class, ethnicity and traditional family needs more attention. In this scenario, the Anthropology curriculum attempts to explain humanity, the universal/general principles man and society; it teaches that all humans are equal, variations are due to variation in the geographical settings where populations live. Again the student will find the pragmatic / standard cultural norms in a human society. Anthropology students are guided by and made known the ethical values for the study of man in communities. The subject will play a part in nurturing moral values and ethics in future citizens of the world.

- **Leadership Readiness/ Quality:** A good leader needs to have well informed knowledge, rational thinking, problem solving quality and ready to act at the different situations. The curriculum of anthropology entails formation of Study Groups and Group Leader, advantage of inter-group competition at time of seminars, group-discussions, quiz etc. in during the class as well as in the field during fieldwork. So the basic knowledge and the tools and techniques of the discipline will help students in developing leadership quality in their future life. The process will be a lifelong learning.

PROGRAMME LEARNING OUTCOMES IN COURSE

- i. The programme is to prepare the students for BSc Honours degree in Anthropology. It aims to understand the degree holders about the development of the subject and its different branches. The fundamental objectives of the study of the subject, its scope, nature and methods of study, related tools and techniques, applied aspects to human welfare and contemporary issues where anthropologists are interested will be known. It covers a wide range of papers covering various themes and also maintains uniformity of structure across universities in the country. Being interdisciplinary in nature anthropology integrates learning derived from all basic and applied sciences and social sciences.
- ii. Students are trained to measure and observe human body, interpret and analyse using statistical methods for identification of race.
- iii. Students are trained to collect anthropological data staying in a village or ethnic group. It is expected that they will be able to identify research problem, design and conduct fieldwork like an anthropology.
- iv. Students will acquire scientific methodology of data handling, hypothesis generation, testing and analysis.
- v. After the completion of the course, students will also gain knowledge of various anthropological related skills and applications such as setting up of ethnological museum and culture resource management.
- vi. They will also develop an understanding of global issues from economic, social, environmental and human biological perspectives, which have relevance in further studies all across the globe.
- vii. They also develop effective communication skills, team work, travel exposure and zeal of investigation and exploration.
- viii. The learners can greatly contribute to the subject through teaching, research and field oriented studies.

xi. The anthropology graduates will be well informed citizens who can play immense role in the civil society too.

x. They will be able to pursue wide range of careers as planners, administrators, academicians, and managers.

Teaching-Learning Process:

- Classroom discussions and interactive learning.
- Audio visual presentation/ teaching methods.
- Presentation by students.
- Individuals/group training to work with software.
- Developing research skills through assignments/projects.
- Conduct theme based group activities.
- Developing Effective communication skills through group discussion.
- Beyond classroom teaching/learning through field excursions.
- Writing of reports/project.

Programme Course Structure for B.Sc. ANTHROPOLOGY (Hons)

Semester	Course Names & Credits				
	Core	DSE	GE	SEC	AECC
	14 papers x 6 credit each	4 papers x 6 credit each	4 papers x 6 credit each	2 papers x 4 credit each	2 papers x 4 credit each
Types	Core	DSE	GE	SEC	AECC
Credits	14x6=84	4x6=24	4x6=24	2x4=8	2x4=8
Semester	Paper	Paper	Paper	Paper	Paper
1	ANT-HC 1016		ANT-HG 1016		GEN-AE 1014 / MAN-AE 1014
	ANT-HC 1026				
2	ANT-HC 2016		ANT-HG 2016		EVS-AE 2014
	ANT-HC 2026				
1st yr. total credits: 22x2=44					
3	ANT-HC 3016		ANT-HG 3016	ANT-SE 3014 / ANT-SE 3024	
	ANT-HC 3026				
	ANT-HC 3036				
4	ANT-HC 4016		ANT-HG 4016 / ANT-HG 4026 / ANT-HG 4036	ANT-SE 4014 / ANT-SE 4024	
	ANT-HC 4026				
	ANT-HC 4036				
2nd yr. total credits: 28x2=56					
5	ANT-HC 5016	ANT-HE 5016			
	ANT-HC 5026	ANT-HE 5026/ ANT-HE 5036/ ANT-HE 5046/ ANT-HE 5056/ ANT-HE 5066			
6	ANT-HC 6016	ANT-HE 6016			
	ANT-HC 6026	ANT-HE 6026/ ANT-HE 6036/ ANT-HE 6046/ ANT-HE 6056/ ANT-HE 6066			
3rd yr. total credits: 24x2=48					
PROGRAMME TOTAL: 26 Papers & 148 Credits					

Core= Hons. discipline specific core course (14 papers of 6 credit each) – **Course Code: HC**
 AECC=Ability enhancement compulsory course (2 papers of 4 credit each)- **Course Code: AE**
 SEC= Skill enhancement course (2 papers of 4 credit each) - **Course Code: SE**
 DSE= Discipline specific elective course (4 papers of 6 credit each) - **Course Code: HE**
 GE= Generic elective course (4 papers of 6 credit each) - **Course Code: HG**
 NOTE: A student opting a specific discipline as Honours course may take GE Papers from any other disciplines available in the college other than his/her Honours discipline.

Semester-wise course and credit details

Semester	Course offered	Course Name	Distribution of Credits
1		Honours Core Papers	
	ANT-HC 1016	Introduction to Biological Anthropology (Theory & Practical)	4+2=6
	ANT-HC 1026	Introduction to Socio-Cultural Anthropology (Theory & Practical)	4+2=6
		Generic (Interdisciplinary) Electives#	
	ANT-HG1016	Fundamentals of Biological Anthropology (Theory & Practical)	4+2=6
		Ability Enhancement Compulsory Course-1	
	GEN / MAN -AE 1014	General English / MIL (Manipuri)	4
2		Honours Core Papers	
	ANT-HC 2016	Archaeological Anthropology (Theory & Practical)	4+2=6
	ANT-HC 2026	Fundamentals of Human Origin and Evolution (Theory & Practical)	4+2=6
		Generic (Interdisciplinary) Electives#	
	ANT-HG2016	Fundamentals of Socio-Cultural Anthropology (Theory & Practical)	4+2=6
		Ability Enhancement Compulsory Course-2	
	EVS-AE 2014	Environmental Science	4
3		Honours Core Papers	
	ANT-HC 3016	Tribes and Peasants in India (Theory & Practical)	4+2=6
	ANT-HC 3026	Human Ecology: Biological and Cultural Dimensions (Theory & Practical)	4+2=6
	ANT-HC 3036	Biological Diversity in Human Population (Theory & Practical)	4+2=6
		Generic (Interdisciplinary) Electives#	
	ANT-HG3016	Fundamentals of Archaeological Anthropology (Theory & Practical)	4+2=6
		Ability (Skill) Enhancement Course	
		(Choose any one) ANT-SE 3014 ANT-SE 3024	Museum Method Public Health and Epidemiology
4		Honours Core Papers	
	ANT-HC 4016	Theories of Culture and Society (Theory & Practical)	4+2=6
	ANT-HC 4026	Human Growth and Development (Theory & Practical)	4+2=6
	ANT-HC 4036	Research Methods (Theory & Practical)	4+2=6

		Generic (Interdisciplinary) Electives#	
	(Choose any one) ANT-HG4016 ANT-HG4026 ANT-HG4036	Anthropology in Practice (Theory & Practical) Introduction to Human Genetics (-do-) Research Methods (-do-)	4+2=6
		Ability (Skill) Enhancement Course	
	(Choose any one) ANT-SE 4014 ANT-SE 4024	Tourism Anthropology Business and Corporate Anthropology	4
5		Honours Core Papers	
	ANT-HC 5016 ANT-HC 5026	Human Population Genetics (Theory & Practical) Anthropology in Practice (Theory & Practical)	4+2=6 4+2=6
		Discipline Specific Elective Course	
	ANT-HE 5016	Indian Archaeology (Theory & Practical)	4+2=6
	(Choose any one) ANT-HE 5026 ANT-HE 5036 ANT-HE 5046 ANT-HE 5056 ANT-HE 5066	Anthropology of Religion, Politics & Economics (Theory & Practical) Visual Anthropology (-do-) Anthropology of Health (-do-) Tribal cultures of India (-do-) Urban Anthropology (-do-)	4+2=6
6		Honours Core Papers	
	ANT-HC 6016 ANT-HC 6026	Forensic Anthropology (Theory & Practical) Anthropology of India (Theory & Practical)	4+2=6 4+2=6
		Discipline Specific Elective Course	
	ANT-HE 6016	Dissertation	4+2=6
	(Choose any one) ANT-HE 6026 ANT-HE 6036 ANT-HE 6046 ANT-HE 6056 ANT-HE 6066	Human Genetics (Theory & Practical) Forensic Dermatoglyphics (-do-) Demographic Anthropology (-do-) Physiological Anthropology (-do-) Sports and Nutritional Anthropology (-do-)	4+2=6

The paper (Generic Elective) is only for the students of other disciplines than Anthropology.

Course Content Details:

PART-1

Honours Core Papers: Compulsory 14 papers of 6 credits each

1. ANT-HC 1016 Introduction to Biological Anthropology
Credit 6 (Theory 4 + Practical 2)

Course objectives:

- Provide understanding of the essence of biological anthropology.

Course Outcome:

- Students will learn about the genesis and development of biological anthropology.
- Learn about the aspects from which variation and evolution are studied.

Theory Credit- 4

Unit I: (20 marks)

History of Physical Anthropology and development of modern Biological Anthropology, aim, scope and relationship with allied sciences i.e. Palaeontology, Geology, Archaeology, Biology and Geography.

1. Modern and traditional Biological Anthropology, with emphasis on human evolution.

Unit II. (19 marks)

History and development of human variation and evolution.

1. Human variation: Concept and definition Morphological variation.
2. Theories of evolution. Lamarckism, Neo Lamarckism, Darwinism, Synthetic theory, Mutation and Neo-Mutation theory.

Unit III: (18 marks)

Human Skeleton

1. Classification and anatomical features.
2. Anatomical changes due to assumption of erect posture: skull, vertebral column, pelvic girdle, femur and foot.
3. Distinguishing characteristics features of man.

Unit IV: (18 marks)

Great divisions of humanity

1. Racial criteria: stature, skin colour, hair, eye, nose, face, ABO blood groups, dermatoglyphics.
2. UNESCO Statement on Race.
3. A comparative account of various racial classifications (Hooton, Deniker, Risley and Guha)

Practical Credit-2

(25 marks)

Unit I: Somatometry (measurements to be taken on five subjects)

1. Maximum head length
2. Maximum head breadth
3. Minimum frontal breadth
4. Maximum bizygomatic breadth
5. Bigonial breadth
6. Nasal height
9. Morphological upper facial height
10. Head circumference
11. Stature
12. Sitting height
13. Body weight

7. Nasal breadth

8. Morphological facial height

Necessary Indices: (1) Cephalic Index (2) Nasal Index (3) Total Facial Index

Unit II: Somatoscopy (to be taken on five subjects)

Somatoscopic observations:

1. Hair – colour, texture, form
2. Eye – colour, epicanthic fold
3. Nose – Bridge, septum, root
4. Skin – colour.

Suggested readings

1. Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). *Introduction to Physical Anthropology*. Wadsworth Publ., USA
2. Kroeber A. L. (1948). *Anthropology*. Oxford & IBH Publishing Co., New Delhi.
3. Stanford C., Allen J.S. and Anton S.C. (2010). *Exploring Biological Anthropology. The Essentials*. Prentice Hall Publ, USA.
4. Statement on Race: *Annotated Elaboration and Exposition of the Four Statements on Race* (1972). Issued by UNESCO. Oxford University Press.
5. Singh, IP and MK Bhasim. 2004. *A Manual of Biological Anthropology*. Kamala Raj Enterprises, Delhi.

2. ANT-HC 1026 Introduction to Socio-Cultural Anthropology
Credit 6 (Theory 4 + Practical 2)

Course objectives:

- To impart conceptual and theoretical knowledge of social and cultural anthropology.
- To impart knowledge of material aspect of culture.

Course Outcome:

- Basic theoretical knowledge about social and cultural anthropology can be achieved.
- Practical knowledge of technology can be gained.

Theory Credit-4

Unit I:

Anthropological perspective and orientation;

Scope and relevance of Social Anthropology;

Relationship of Social Anthropology with other disciplines:

Sociology, Psychology, Economics, Political Science and History. (20 marks)

Unit II:

Concepts- society and culture; status and role; groups and institution, caste and tribe, social stratification, and civil society. Social fact; social action; social conflict; social system.

Characteristics of culture; culture and civilisation; aspects of culture- material and abstract; acculturation; enculturation; structure of culture- trait, complex, area; culture focus; variation and diversity in culture. (19 marks)

Unit III

Kinship and Descent: marriage and family with special reference to India. (18 marks)

Unit IV

Religion and Magic – concept, theories and functions. (18 marks)
Economic and Political institutions.

Practical Credit- 2

Technology (25 marks)

Drawing and description of ethnological specimens – hunting and warfare, fishing, agriculture, household implements and dress. Students should collect specimens of the material culture.

Suggested Readings

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

3. ANT-HC 2016 Archaeological Anthropology Credit 6 (Theory 4+Practical 2)

Course objectives:

- To provide an understanding of the prehistoric and archaeological background of evolution, variation and continuity of human society and culture.

Course Outcome:

- Archaeological background of prehistoric, proto-historic and historic evolution of culture will be gained.
- Practical understanding of prehistoric culture will be gained through tool and pottery techniques.

Theory Credit- 4

Unit I: Definition and scope of archaeological anthropology; relation with other disciplines: Archaeology, Physical Science (Physics, Chemistry), Geography, Geology, Palaeontology.

Division of prehistoric periods- stone and metal ages and their characteristic features. Concepts-artifact, assemblage, industry and culture; Field Archaeology, Ethno-archaeology and New-archaeology. (15 marks)

Unit II: Methods of studying archaeological anthropology. Estimation of Time and reconstruction of the past: Absolute dating method and relative dating methods. Carbon₁₄ (C₁₄), Potassium Argon dating, Dendochronology, Stratigraphy and Typo-technology. Methods of climatic reconstruction: palynology, paleontology. (15 marks)

Unit III: Significance of Pleistocene epoch in prehistoric archaeology. Major environment and climate changes of Pleistocene; glacial and interglacial, pluviation and interpluviation. (15 marks)

Unit IV: Understanding prehistoric culture: classification, bases, character. Classification prehistoric tools: Typology, Technology and Functional. Combination fabrication techniques and relative estimation of their efficiency. (15 marks)

Unit V: Earliest evidence of culture in the World: Konso, Olduvai Gorge, Attirampakkam, Isampur, Soanian and Madrasian (15 marks)

Practical Credit-2 (25 marks)

1. Typo-technological analysis of Prehistoric Tools: identification, interpretation and drawings of the tool Types: 1. Core Tool Types 2. Flake Tool Types 3. Blade Tool Types
4. Microlithic Tool Type 5. Neolithic Tool Type
2. Ceramic technology: Basic concepts and drawing of hand-made and wheel-made pottery.

Suggested Readings

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

4. ANT-HC 2026 Fundamentals of Human Origin & Evolution
Credit 6 (Theory 4+Practical 2)

Course objectives:

- Provide an understanding of evolutionary stages of man.

Course Outcome:

- Human evolutionary developmental stages will be learnt.
- How fossil finds explain in them the evolutionary development of man will be learnt.

Theory Credit- 4

Unit-I: (15 marks)

Non-human Primates in relation to human evolution:

1. Classification and characteristics of living Primates (based on ICZN guideline)

2. Distinguishing characteristics of man
3. Comparative anatomy and behaviour of human and non-human Primates

Unit-II: (15 marks)

Primate origins and radiation with special reference to Miocene hominoids:
Ramapithecus- distribution, features and their phylogenetic relationships.

Unit-III: (15 marks)

1. Australopithecines: distribution, features and their phylogenetic relationships.
2. Appearance of genus Homo (*Homo habilis*) and related finds.

Unit-IV: (15 marks)

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

Unit-V: (15 marks)

1. The origin of *Homo sapiens*: fossil evidences of Neanderthals and Archaic *Homo sapiens sapiens*
2. Origin of modern humans (*Homo sapiens sapiens*): distribution and features.
Hominisation process

Practical Credit- 2 (25 marks)

1. Craniometric 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
Indices: Cranial index, Facial index and Nasal index
2. Osteometry: Measurements of long bones:
 - a. Femur
 - b. Humerus
 - c. Fibula
 - d. Tibia
 - e. Clavicle
 - f. Scapula

Suggested Readings

1. Buettner-Janusch, J. (1966). *Origins of Man: Physical Anthropology*. John Wiley & Sons, Inc., New York, London, Sydney.
2. Conroy, G.C. (1997). *Reconstructing Human Origins: A Modern Synthesis*. W. W. Norton & Company, New York, London.
3. Howell F.C. (1977). *Horizons of Anthropology*. Eds. S. Tax and L.G. Freeman, Aldine Publishing House, Chicago.
4. Nystrom P. and Ashmore P. (2011). *The Life of Primates*. PHI Learning Private Limited, Delhi.
5. Seth P. K. and Seth S. (1986). *The Primates*. Northern Book Centre, New Delhi, Allahabad.
6. Singh I. P. and Bhasin M.K. (1989). *Anthropometry: A Laboratory Manual on Biological Anthropology*. Kamla-Raj Enterprises, Chawri Bazar, Delhi.
7. Standford C.; Allen J.S. and Anton S.C. (2012). *Biological Anthropology: The Natural History of Mankind*. PHI Learning Private Limited, New Delhi.
8. Swindler D. R. (2009). *Introduction to the Primates*. Overseas Press India Pvt. Ltd., New Delhi.

5. ANT-HC 3016 Tribes and Peasants in India
Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart anthropological knowledge about tribes, villages and peasantry of India.

Course Outcome:

- Anthropological knowledge and approach to the study of tribes, villages and peasantry is known.
- The problems, prospects of development and government policies towards tribes, villages and peasantry will be learnt.

Theory Credit- 4

Unit I: Anthropological Concept of Tribe (15 marks)

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

Unit II: Tribes and wider world. (15 marks)

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

Unit III: Anthropological Concept of Village (15 marks)

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

Unit IV : Concept, genesis and system Caste in India and changes. (15 marks)

Unit IV Ethnicity Issues: Tribal and Peasant Movements; Identity issues (15 marks)

Practical credit- 2 (25 marks)

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

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

List of Ethnographies:

Walker A. (1986). *The Todas*. Delhi : Hindustan Publishing Corporation

Verrier Elwin (1992). *The Muria and their Ghotul*. USA: Oxford University Press.

Malinowski M. (1922). *Argonauts of the Western Pacific*. London: Routledge and Kegan Paul Ltd.

Furer-Haimendorf C.V. (1939). *The Naked Nagas*. London: Methuen and Co.

Evans-Pritchard E.E. (1940). *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*. Oxford : Clarendon Press.

Majumdar D. N. (1950). *Affairs of Tribes*. Lucknow: Universal Publishers Ltd.

Dube S.C. (1955). *Indian Village*. London: Routledge and Kegan Paul Ltd.

Das T.C. (1963). *The Purums*.

Suggested Readings

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

6. ANT-HC 3026 Human Ecology: Biological & Cultural dimensions
Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart knowledge about human adaptation in ecological setting, and about urbanisation and industrialisation process.

Course Outcome:

- How human adapt to their echo-setting is known.
- The knowledge on urbanisation and industrialisation process will be gained.

Theory credit-4

Unit 1: Concepts in Ecology: Definition, Eco sensitivity adaptation, acclimation, acclimatization, biotic and abiotic component. Methods of studying human ecology. (15 marks)

Unit II: Adaptation to various ecological stresses; Ecological rules and their applicability to human populations. (15 marks)

Unit III: Culture as a tool of adaptation. Various modes of human adaptation in pre-state societies: i. Hunting and food gathering, ii. Pastoralism, iii. Shifting cultivation (15 marks)

Unit IV: Ecological themes of state formation: i. Neolithic revolution, ii. Hydraulic civilization (15 marks)

Unit V: Impact of urbanization and industrialization on man- biological and cultural. (15 marks)

Practical Credit- 2 (25 marks)

Biological Dimensions

Size and Shape Measurements

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

Size and Shape Indices

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

Cultural Dimensions

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

Suggested Reading

1. Schutkowski, H. Berlin (2006). *Human Ecology: Biocultural Adaptation in Human Communities*. Springer Verlag.

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

7. ANT-HC 3036 Biological Diversity in Human Populations Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart an understanding of how to assess human biological diversity.

Course Outcome:

- Students will learn about markers for biological diversity.
- They also will know the markers used for classification of races and population.

Theory credit- 4

Unit I: Concept of Biological Variability; Race; Hardy-Weinberg Law; Sources of Genetic Variation; Structuring Genetic Variation; Interpretation of Human Variation, Genetic Polymorphism (Serological, Biochemical and DNA Markers); Human Adaptability -Adaptive Mechanisms determining the types of adaptation. (15 marks)

Unit II: A critical appraisal of contribution of Rislely, Guha, and Sarkar towards understanding ethnic elements in the Indian populations. (15 marks)

Unit III: Role of Bio-cultural Factors:

Cultural Biology; Bio-cultural factors influencing the diseases and nutritional status. Evolution of Human diet, biological perspectives of ageing process among different populations. (15 marks)

Unit IV: Demographic Anthropology:

Sources of demographic data, demographic processes, demographic profile of Indian populations and its growth structure; Inbreeding and Consanguinity - Biological consequences of inbreeding, frequency of inbreeding in world populations; Methods of counselling. (15 marks)

Unit V: Genetic diversity among Indian Population (15 marks)

Practical Credit- 2 (25 marks)

1. Craniometric Measurements (Skull & Mandible) (10 marks)
2. Determination of A1, A2, B, O; M N; and Rh (Test with five Anti-Rh sera) blood groups of ten subjects. (5 marks)
3. Analysis and interpretation of finger ball pattern types, palmar main lines and pattern index; Finger print classification and development of chance prints and statistical treatment of the data collected from ten subjects. (10 marks)

Suggested readings:

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

8. ANT-HC 4016 Theories of Culture and Society Credit 6 (Theory 4+Practical 2)

Course objectives:

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

Course Outcome:

- Students will have the fundamental ideas of the theories of human society.
- They will also have the fundamental ideas of the theories of culture.

Theory credit- 4

Unit I: Emergence of Anthropology: interface with evolutionary theory and colonialism, changing perspectives on Evolutionism, Diffusionism and Culture Area theories (15 marks)

Unit II: Emergence of fieldwork tradition, Historical Particularism, American Cultural Tradition (15 marks)

Unit III: Durkheim and social integration, Functionalism and Structural-functionalism and British Social Anthropology (15 marks)

Unit IV: Structuralism: Claude Levi-Strauss and Edmund Leach; Society and Personality (Margaret Mead, Ruth Benedict, Cora Dubois) (15 marks)

Unit V: Symbolic and Interpretative approach (15 marks)

Practical credit-2 (25 marks)

The following exercises will be undertaken by the students so as to enable them to connect the theories they learn with things of everyday living. They may be allowed to take up any five of the following. (5x5 marks)

1. To identify a topic relating to a contemporary issue and formulate research questions and clearly identify the theoretical perspectives from which they are derived.

2. Identification of variables of a study.
3. Various types of hypotheses.
4. Formulation of hypothesis.
5. Distinction between hypothesis testing and exploratory research.
6. Identification of universe and unit of study with justifications.
7. Choice of appropriate research technique and method in the context of a theoretical framework.

Suggested Readings

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

9. ANT-HC 4026 Human Growth and Development Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart knowledge about the growth and development of man from the foetus.

Course Outcome:

- Students will learn the stages of human growth and development.
- They will learn the biological factors that influence growth and development.
- They will also have knowledge of human body composition.

Theory Credit- 4

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

Unit II: Prenatal (conception till birth) and postnatal (birth till senescence) period of growth, pattern of normal growth curves, variation from normal growth (canalization, catch-up growth and catch-down growth), ethnic and gender differences in growth curves, secular trend.
(15 marks)

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
(15 marks)

Unit IV: Nutritional epidemiology-concept of balanced diet, impact of malnutrition (over and under) with special reference to obesity, Kwashiorkor and Marasmus. Assessment of nutritional status.
(15 marks)

Unit V: Human physique and body composition - models and techniques; gender and ethnic differences; Somatotyping and human physique with reference to Sheldon, Parnell, Heath and Carter methods
(15 marks)

Practical Credit- 2 (25 marks)

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

Suggested readings

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

10. ANT-HC 4036 Research Methods

Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart knowledge on research design, techniques of data collection, report writing and ethics of research in anthropology.

Course Outcome:

- Knowledge of formation of research design, application of methods & techniques in data collection is learnt.
- Ethics of research are learnt for an effective research study.

Theory Credit- 4

Unit I: Research Design

Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis, sampling, tools and techniques of data collection, data analysis and reporting, guiding ideals and critical evaluation of major approaches in research methods, basic tenets of qualitative research and its relationship with quantitative research. (15 marks)

Unit II: Field work tradition in Anthropology

Ethnographic approach, contribution of Malinowski, Boas and other pioneers; cultural relativism, ethnocentrism, etic and emic perspectives, comparative and historical methods, techniques of rapport establishment, identification of representative categories of informants, maintenance of field diary and logbook. (15 marks)

Unit III: Tools and techniques of data collection

Concept of survey, relationship of survey method with ethnographic method, construction of questionnaire and interview schedule, validation and internal consistency of questionnaire
Observation - Direct, Indirect, Participant, Non-participant, Controlled
Interview - Structured and unstructured, Focused Group Discussion, key informant interview
Case Study and Life History; Genealogy - Technique and application (15 marks)

Unit IV

1. Identify, define, and analyze ethical issues in the context of human subject research.
2. Issues of academic fraud and plagiarism, conflicts of interest, authorship and publication, Analysis and Writing Up
3. Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, review and index.
4. Similarities and differences between qualitative and quantitative data analysis; introduction of software for data analysis. (15 marks)

Unit V: Bio-Statistics

1. Types of variables, presentation and summarization of data (tabulation and illustration).
2. Descriptive statistics- Measurers of Central Tendency, Measure of Variation, Skewness and Kurtosis, Variance and standard deviation, Normal and binomial distribution.
3. Tests of Inference- Variance ratio test, Student's "t" tests, Chi-square test and measures of association.
4. Pedigree Analysis- Importance and implication. (15 marks)

Practical Credit- 2 (25 marks)

Project report writing- preparation of research problem, study design, data collection techniques, analysis and report writing based on a physical or social problem.

Suggested Readings

1. Garrard E and Dawson A. *What is the role of the research ethics committee? Paternalism, inducements, and harm in research ethics*. Journal of Medical Ethics 2005; 31: 419-23.
2. Bernard H.R. *Research Methods in Anthropology, Qualitative and Quantitative Approaches*. Jaipur: Rawat Publications. 2006.
4. Madrigal L. *Statistics for Anthropology*. Cambridge: Cambridge University Press. 2012.
5. Zar JH. *Biostatistical Analysis*. Prentice Hall. 2010.
6. Michael A. *The Professional Stranger*. Emerald Publishing. 1996.
7. Bernard R. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. AltaMira Press. 2011.
8. Emerson RM, Fretz RI and Shaw L. *Writing Ethnographic Fieldnotes*. Chicago, University of Chicago Press. 1995.
9. Lawrence NW. *Social Research Methods, Qualitative and Quantitative Approaches*. Boston: Allyn and Bacon. 2000.
10. O'reilly K. *Ethnographic Methods*. London and New York: Routledge. 2005.
11. Patnaik S.M. *Culture, Identity and Development: An Account of Team Ethnography among the Bhil of Jhabua*. Jaipur: Rawat Publications. 2011.
12. Pelto PJ and Pelto GH. *Anthropological Research, the Structure of Inquiry*. Cambridge: Cambridge University Press. 1978.
13. Sarantakos S. *Social Research*. London: Macmillan Press. 1998

11. ANT-HC 5016 Human Population Genetics Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart an understanding of measuring changes in human population.

Course outcome:

- Students will learn about mechanism which create variation in gene frequencies.

- Students will learn method of assessing gene frequencies.
- Students will also learn how ecological factors help maintaining gene frequencies.

Theory Credit- 4

Unit I. Essentials of Genetics

Landmarks in the history of genetics, principles in human genetics, single locus (Mendelian) versus multilocus (quantitative/complex) inheritance, chromosome theory of inheritance (segregation and independent assortment), Mendelian inheritance (single factor and multifactorial inheritance, polygenic inheritance), Non- Mendelian inheritance (multiple allelism, Co-dominance; sex linked, epistasis; penetrance and expressivity; Cytoplasmic inheritance).

Unit II. Ecological Genetics and Polymorphism

Phenotypic & genotypic polymorphisms, transient polymorphism, balanced polymorphisms, models explaining the maintenance of genetic polymorphism (relationship between sickle cell and malaria, X-linked polymorphism, selection due to infectious diseases and its association with blood groups and other)

Unit III: Hardy-Weinberg principle

Genotypic and allelic frequencies, assumptions of Hardy-Weinberg equilibrium, its applications and exceptions

Unit IV: Mechanism for dynamics in Gene Frequency

Mutation, selection (pattern and mechanism), Genetic drift (bottle neck and founder effect), Gene flow/migration, inbreeding (inbreeding co-efficient and its genetic consequences)

Unit V: Population structure and admixture in human populations

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

Unit VI: Human evolutionary genetics

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

Practical Credit- 2

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

Suggested readings

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

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

12. ANT-HC 5026 Anthropology in Practice Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart a knowledge of history & development anthropology, ethnic elements in north-east India and diversity in India.

Course outcome:

- Students will learn the history and development of anthropology in India.
- Knowledge about the diversity in India and North-east in particular, with problems of tribes and constitutional provisions safeguarding their rights will be gained.

Theory Credit- 4

Unit I: Academic and Applied Anthropology

Academics and practitioners: differences, structure, activities, controversies and issues; Applied Anthropology, Action Anthropology and Development Anthropology.

Unit II: Role of Anthropology in Development

Anthropology and public policy, Need Assessment and Community Development, Anthropology of NGOs, Management Anthropology, Environment and Community Health, social and economic sustainability, Cultural Resource Management

Unit III: Future Directions in Anthropology

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

Unit IV: Constitutional Perspective and Human Rights

Constitutional Provisions, Evaluation, Planning and Development of Indian Populations; Human Rights, interrelationships of rights and duties: harmony and conflict, protection and enforcement of human rights and duties, National and State Human Rights Commission and other grievance redressal mechanism, human rights of special category and marginal groups, emerging trends of human rights respective to terrorism, environment and globalization

Unit V: Biosocial anthropology in practice

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

Practical Credit- 2

1. The students will visit a NGO or corporate office or census office in Delhi and its adjoining areas and write principal observations on the same.
2. Write a project on constitutional provisions or evaluation of any development project/report.

3. Draw a scene of crime and identify the various evidences in a portrayed crime scene.
4. Write a project on Religious Tourism / Tribal Tourism / Health Tourism / Fashion / Human Rights / Ecotourism.
5. Write a project on the demographic profile from secondary data.
6. Collect data on bio-social problem and design counselling and give the analysis and interpretation.

Suggested Readings

1. Arya A and Kapoor AK. (2012). Gender and Health Management in Afro-Indians. Global Vision Publishing House, New Delhi.
2. Kertzner DI and Fricke T. (1997). Anthropological Demography. University of Chicago Press.
3. Basu, A. and P. Aaby (1998). The Methods and the Uses of Anthropological Demography. 329 pp. Oxford, Clarendon Press
4. Carter A. (1998). Cultural Models and Demographic Behavior. In The Methods and the Uses of Anthropological Demography edited by Basu A and Aaby P. Oxford: Clarendon Press. pp 246-268.
5. Census of India (2001, 2011) and National Family Health Survey (2006,2010).
6. Ervic, Alexander M., (2000). Applied Anthropology: Tools and Perspectives for Contemporary Practise, Boston, MA: Allyn and Bacon.
7. Erwin A. (2004). Applied Anthropology Tools and Practice, Allyn and Bacon.
8. Gupta S and Kapoor AK. (2009). Human Rights among Indian Populations: Knowledge, Awareness and Practice. Gyan Publishing House, New Delhi.
9. Willen SS. (2012). Anthropology and Human Rights: Theoretical Reconsiderations and Phenomenological Explorations. Journal of Human Rights. 11:150-159.
10. Goodale M. (2009). Human Rights: An Anthropological Reader. Wiley Blackwell.
11. Gupta S and Kapoor AK. (2007). Human Rights, Development and Tribe. In : Genes, Environment and Health - Anthropological Perspectives. K. Sharma, R.K. Pathak, S. Mehra and Talwar I (eds.). Serials Publications, New Delhi.
12. Margaret AG. (2003). Applied Anthropology: A Career-Oriented Approach, Boston, MA: Allyn and Bacon.
13. Halbar BG and Khan CGH. (1991). Relevance of Anthropology - The Indian Scenario. Rawat Publications, Jaipur.
14. Kapoor AK (1998). Role of NGO's in Human Development: A Domain of Anthropology. J Ind Anthropol Soc; 33:283-300.
15. Kapoor AK and Singh D. (1997). Rural Development through NGO's. Rawat Publications, Jaipur.
16. Kumar RK and Kapoor AK. (2009). Management of a Primitive Tribe: Role of Development Dynamics. Academic Excellence, Delhi.
17. Mehrotra N and Patnaik SM. (2008). Culture versus Coercion: The Other Side of Nirmal Gram Yojna, Economic and Political weekly. pp 25-27.
18. Mishra RC (2005). Human Rights in a Developing Society, Mittal Publications, Delhi.
19. Noaln RW. (2002). Anthropology in Practice: Building a Career outside the Academy. Publishing Lynne Reinner.
20. Patnaik SM (1996). Displacement, Rehabilitation & Social Change. Inter India Pub., New Delhi.
21. Patnaik SM (2007). Anthropology of Tourism: Insights from Nagaland. The Eastern Anthropologist. 60(3&4):455-470
22. Srivastav OS (1996). Demographic and Population Studies. Vikas Publishing House, India
23. Vidyarthi LP and BN Sahay (2001). Applied Anthropology and Development in India, National Publishing House, New Delhi.
24. Vidyarthi LP. (1990). Applied Anthropology in India - Principles, Problems and Case Studies. Kitab Mahal, U.P.
25. Vidyarthi V (1981). Tribal Development and its Administration. Concept Publishing Company, New Delhi.
26. Kalla AK and PC Joshi (eds.) (2003) Tribal Health and Medicines. Concept Publishing

Company Limited, New Delhi.

27. Bhat, HK, PC Joshi and BR Vijayendra (eds.) (2013) Explorations in Indian Medical Anthropology. Concept Publishing Company Limited, New Delhi.

13. ANT-HC 6016 Forensic Anthropology Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart an understanding of the forensic anthropology.

Course outcome:

- Students will learn about distinguishing human from non-human skeleton remains.
- Students will learn about techniques of making personal identification.

Theory Credit- 4

Unit-I

Introduction to Forensic Anthropology: definition, brief history; scope, applications and integration of Forensic Anthropology.

Unit-II

Basic Human Skeletal Biology, identification of human and non-human skeletal remains, ancestry, age, sex and stature estimation from bones, discovery and techniques for recovering skeletonized human remains.

Unit-III

Personal identification, complete and partial identification, methods of identification in living persons: Somatometry, Somatoscopy, occupational marks, scars, bite marks, tattoo marks, fingerprints, footprints, lip prints, nails, handwriting, deformities and others.

Unit-IV

Serology: Identification and Individualization of bloodstain, urine, semen and saliva. Patterns of Bloodstains.

Unit-V

Individualization: Forensic Odontology-tooth structure and growth, bite marks, facial reconstruction, DNA Profiling.

Practical Credit- 2

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

Suggested Readings:

1. Bass W.M. (1971). *Human Osteology: A Laboratory and Field manual of the Human Skeleton*. Columbia: Special Publications Missouri Archaeological Society.
2. Black S. and Ferguson E. (2011). *Forensic Anthropology 2000 to 2010*. CRC Press, London.
3. Byers, S. N. (2008). *Forensic Anthropology*. Boston: Pearson Education LTD.
4. Gunn A. (2009) *Essential Forensic Biology* (2nd ed). Chichester: Wiley-Blackwell
5. Modi, R. B. J. P. (2013). *A Textbook of Medical Jurisprudence and Toxicology*. Elsevier.
6. Reddy V. R. (1985). *Dental Anthropology, Inter-India Publication*, New Delhi.
7. Spencer, C. (2004). *Genetic Testimony: A Guide to Forensic DNA Profiling*, Pearson, New Delhi.
8. Vats Y., Dhall J.K. and Kapoor A.K. (2011). Gender Variation in Morphological Patterns of Lip Prints among some North Indian Population. *J. Forensic Odontology*, 4: 11-15.
9. Wilkinson, C. (2004). *Forensic facial reconstruction*. Cambridge University Press.
10. Klepinger LL (2006). *Fundamentals of Forensic Anthropology*. Wiley-Liss Publications

14. ANT-HC 6026 Anthropology of India
Credit 6 (Theory 4+Practical 2)

Course objectives:

- To understand the racial, linguistic and ethnic dimensions of Indian society and social dynamics which is constantly acting on it throughout the years.

Course outcome:

- Students will learn about the racial, linguistic and ethnic dimensions of Indian society.
- Students will be familiar with the anthropological situation in India.

Theory Credit-4

Unit I:

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

Unit II:

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

Unit III:

1. Aspects of Indian Village -social organisation, agriculture and impact of market economy on villages
2. Tribal situation in India- biogenetic variability, linguistic and socio-economic characteristics; Problems of tribal peoples, land-alienation, indebtedness, lack of educational facilities, shifting-cultivation, migration, forests and tribal unemployment, health and nutrition, tribal movement and quest for identity
3. Developmental projects- tribal displacements and rehabilitation problem
4. Impact of culture-contact, urbanization and industrialization on tribal and rural population

5. Basic concepts -great tradition and little tradition, sacred complex, Universalization and parochialization, Sanskritization and Westernization, Dominant caste, Tribe-caste continuum, Nature-Man-Spirit complex, pseudotribalism,

Unit IV:

1. Problems of exploitation and deprivation of scheduled caste/ tribe and Other Backward Classes.
2. Constitutional safeguards for the Scheduled caste and scheduled tribes.

Practical ` Credit- 2

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

Suggested Reading

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

PART-2

Ability (Skill) Enhancement courses (SE):

2 papers of 4 credit each to be opted- one in Sem. 3 and one in Sem. 4

1. **ANT-SE 3014** **Museum Method** (Credit- 4)

Course objective:

- To understand the significance of museum, and its operation from Anthropological perspectives.

Learning outcomes:

- Acquired first-hand knowledge of preservation and conservation of objects of anthropological museum.

Theory (2 credit)

Unit- 1 Museum- definition and historical background; types of museum. (15 marks)

Unit- 2 Anthropological museum and its scope; reflexion of anthropological theories on museum; anthropological museum in India and North-East India. (15 marks)

Unit-3 Systematic documentation of data- from field to showcase; preparation of Index Card; methods of arrangement and display. (15 marks)

Unit- 4 Factors and agencies causing deterioration to museum exhibits. (15 marks)

Unit- 5 Preservation- Preservative and curative measures. (15 marks)

Practical (2 credit)

1. Every student should undertake systematic documentation of at least 5 (five) technological implements and prepare index cards. (10 marks)
2. Visit an ethnological museum and write a report on (i) display method, (ii) preservative and curative measures. (15 marks)

Suggested readings

1. Agrawal, O.P. Care and Treatment of Cultural Materials
2. Bhatia, S.K. A Guide on the Preventive Conservation of Museum Materials.
3. Sol Tax (ed.) Current Anthropology. 1969. Part II, Vol. 10(4)
4. Wittlin, Alma, S. The Museum: Its History and Its Tasks in Education.

2. **ANT-SE 3024** **Public Health and Epidemiology** (Credit- 4)

Course objective:

- To understand the epidemiology methods used in research studies in clinic-based populations.

Learning outcomes:

- Acquired knowledge of biological, chemical, and physical agents in environment that influence health.
- Also gained knowledge of cultural, social, behavioural, psychological and economic factors that influence health and illness.

Theory (2 credit)

Unit I: Principles of Epidemiology in Public Health:

Overview of epidemiology methods used in research studies to address disease patterns in community and clinic-based populations, distribution and determinants of health-related states or events in specific populations, and strategies to control health problems (15 marks)

Unit II: Statistical Methods for Health Science:

Analysis and interpretation of data including data cleaning, data file construction and management; study design and research hypothesis; parametric and nonparametric methods, measures of association, Linear and Logistic regression, Generalized Linear Modelling, and Survival analysis (15 marks)

Unit III: Environmental Health:

Effects of biological, chemical, and physical agents in environment on health (water, air, food and land resources); ecological model of population health; current legal framework, policies, and practices associated with environmental health. (15 marks)

Unit IV: Psychological, behavioural, and social issues in Public Health:

Cultural, social, behavioural, psychological and economic factors that influence health and illness; behavioural science theory and methods to understanding and resolving public health problems; assess knowledge, attitudes, behaviours towards disease and patient compliance to treatment. (15 marks)

Unit V: Epidemiology of disease:

Contemporary methods for surveillance, assessment, prevention, and control of infectious and chronic diseases, disabilities, HIV/AIDS; implementation of control measures (15 marks)

Practical (2 credit) (25 marks)

(A student may take up one of the following activities)

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

Suggested reading

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

3. ANT-SE 4014 Tourism Anthropology (Credit- 4)

Course objective:

- To understand the anthropological perspective on tourism in the current context.

Learning outcomes:

- Students will learn the socio-cultural background of the developing tourism.
- Students will learn the Basics of eco-tourism and heritage tourism in the current situation.

Theory (2 credit)

Unit I: Tourism- aspects and prospects, anthropological issues and theoretical concerns, tourist as ethnographer; pilgrimage and authenticity issues (15 marks)

Unit II: Interconnections between tourism history and the rise of the socio-cultural study of tourism including temporary migration, colonial exploration, pilgrimage, visiting relatives, imagined and remembered journeys, and tourism (15 marks)

Unit III: understand the implications of tourism as a major mechanism of cross-cultural interaction; role of symbolism, semiotics, and the imagination in tourism; tourism and the commodification of culture or cultural degradation (15 marks)

Unit IV: understand the global and local political economy of contemporary tourism, particularly in relation to international development; explore dynamic relationships between heritage-making enterprises, revival and preservation projects, the international flow of capital; role of museums and other branches of the cultural industries" (including music, art, and food) in tourism economies; tourism and global mobility; Ecotourism and sustainable development (15 marks)

Unit V: New Directions in the Anthropology of Tourism: Globalization, Tourism and Terrorism; applied aspects of anthropology in tourism development and planning. (15 marks)

Practical (2 credit) (25 marks)

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

Suggested Readings

1. Chambers E. (2000). Native Tours: The Anthropology of Travel and Tourism. Prospect Heights: Waveland.
2. Crick M. (1995). The Anthropologist as Tourist: An Identity in Question. in Lanfant MF, Allcock JB, Bruner EM (eds.) International Tourism: Identity and Change. London: Sage.
3. Dann GMS, Nash D and Pearce PL. (1988). Methodology in Tourism Research. Annals of Tourism Research. 15:1-28.
4. Gmelch SB. (2004). Tourists and Tourism: A Reader. Long Grove: Waveland.
5. Graburn NHH. (1977). Tourism: The Sacred Journey. Hosts and Guests: The Anthropology of Tourism. Valene L. Smith, ed. Philadelphia: University of Pennsylvania Press. Pp. 33-47.
6. Dann G. (2002). The Tourist as a Metaphor of the Social World. Wallingford: CAB International.
7. Nash D. (1996). Anthropology of Tourism. New York: Pergamon.
8. Kirshenblatt-Gimblett B.(1998). Destination Culture: Tourism, Museums, and Heritage. University of California Press.
9. Lippard LR. (1999). On the Beaten Track: Tourism, Art and Place. New Press.
10. Picard M and Wood R. (1997). Tourism, Ethnicity, and the State in Asian and Pacific Societies. University of Hawaii Press.
11. Crick M. (1994). Anthropology and the Study of Tourism: Theoretical and Personal

Reflections. In Crick M (eds.). *Resplendent Sites, Discordant Voices: Sri Lankans and International Tourism*. Chur, Switzerland: Harwood Publishers.

12. Wood R. (1997). *Tourism and the State: Ethnic Options and the Construction of Otherness*. in Picard and Wood *Tourism, Ethnicity and the State in Asian and Pacific Societies*. Univ. of Hawaii Press.

13. Richard B. (1992). *Alternative Tourism: The Thin Edge of the Wedge*. in Valene Smith and Eadington *Tourism* (eds.). *Alternatives: Potentials and Problems in the Development of Tourism*. University of Pennsylvania Press.

14. Hitchcock. (1997). *Cultural, Economic and Environmental Impacts of Tourism among the Kalahari*. In Chambers E (eds.) *Tourism and Culture: An Applied Perspective*. SUNY Press.

4. ANT-SE 4024 Business and Corporate Anthropology (Credit- 4)

Course objective:

- To understand the basics of the emerging Business Anthropology and its important.

Learning outcomes:

- Students will learn the background of Business and Corporate Anthropology.
- Students will also earn the applicability of Anthropology in business and corporate sector.

Theory (2 credit)

Unit-1. Business and Corporate Anthropology: history and subject matter (15 marks)

Unit-2. Applied Anthropology in industry, application of the Ethnography in business management (15 marks)

Unit-3. Anthropology and consumer behaviour (15 marks)

Unit-4. Globalization, international trade and Anthropology (15 marks)

Unit-5. Techniques for conducting fieldwork for Business Organizations (15 marks)

Practical: (2 credit) (25 marks)

(A student may take up one of the following activities)

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

Suggested Readings:

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

PART-3

Discipline Specific Elective Papers (SE):

4 papers of 6 credit each to be opted- two in Sem. 5 and two in Sem. 6

1. ANT-HE 5016 **Indian Archaeology**
(Theory & Practical)

Course objective:

- To acquaint the students with prehistoric background of India both from theoretical and practical perspectives.

Learning outcome:

- Students will be familiar with the rich prehistoric past of India.
- They will understand that the prehistoric past laid the foundation upon which the later development in the country took place.

Theory credit-4

Unit I: Prehistoric India

Pleistocene chronology of India: A critical assessment

Unit II: Character, distribution and interpretation of habitat and economy of following cultures of India:

- i. Lower palaeolithic
- ii. Middle palaeolithic
- iii. Upper Palaeolithic
- iv. Mesolithic culture
- v. Neolithic culture
- vi. Art, ritual and belief

Unit III: Bronze Age culture in the Indus basin:

i. Harappa civilisation- site, town planning and architecture, arts and crafts, trade and commerce, cause of declination.

Unit IV: Megalithic culture of India, with special reference to North-East India.

Unit V: Important excavated sites of North-East India, with special reference to Manipur.

Practical credit 2

I. Identification of tools:

- | | |
|-------------------------------------|-------------------|
| i. Chopper-Chopping tools, Handaxes | ii. Cleaver tools |
| iii. Side scrapers | iv. End scrapers |
| v. Borers | vi. Microliths |
| vii. Knives | viii. Burins |
| ix. Bone tools | |

II. Application of Remote Sensing and GIS in prehistoric archaeology:

- i. Visual Interpretation Techniques/Keys
- ii. Visual Interpretation of Aerial Photograph: identification and mapping of cultural features from Aerial Photograph
- iii. Identification and mapping of physical and cultural features from satellite imagery

Suggested readings

1. Bhattacharya, D.K. 1996. An Outline of Indian Prehistory. Palika Prakashan, Delhi
2. Sankalia H.D. 1974. Prehistory and Protohistory of India and Pakistan. Deccan College, Poona
3. -do- 1982. Stone Tool Types and Technology. B.R. Publication, Delhi
4. Singh, O.K.

2. ANT-HE 5026 **Anthropology of Religion, Politics & Economics**
(Theory & Practical)

Course objective:

- To acquaint the students with anthropological theories of religion, economics and polity and their interrelationship.

Learning outcome:

- Students will be familiar with anthropological theories of religion, economic and political institutions.
- The interrelationship among of religion, economics and political institutions will be discernible.

Theory credit 4

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

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

Practical credit b2

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

Suggested Readings:

2. Durkheim E. (1986). *The elementary forms of the religious life, a study in religious sociology*. New York:Macmillan.
3. Benedict A. (2006). *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. Verso
4. Gledhill J. (2000). *Power and Its Disguises: Anthropological Perspectives on Politics*. 2nd ed. London: Pluto Press.
5. Ellis F. (2000). A framework for livelihood analysis. In *Rural Livelihoods and Diversity in Developing Countries* . Oxford: Oxford University Press.
6. Henrich J, Boyd R, Bowles S, Camerer C, Fehr E, Gintis H, McElreath R, Alvard M et al. (2005). "Economic Man" in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavior and Brain Science*. 28(6):795-815;
7. Henrich J. (2002). Decision-making, cultural transmission, and adaptation in economic anthropology. In: J. Ensminger (Ed.), *Theory in Economic Anthropology* (pp. 251-295). Walnut Creek, CA: Altamira Press.
8. Lambek. M. (2008) *A Reader in the Anthropology of Religion*.
9. Eller JD. (2007). *Introducing Anthropology of Religion*. New York: Routledge.
10. Glazier SD. (1997). *Anthropology of Religion: A Handbook*. Westport, CT: Greenwood Press.

11. Frick GD and Langer R. (2010). Transfer and Spaces. Harrassowitz (Germany).
12. Evans-Pritchard EE. (1937). Witchcraft, Oracles and Magic among the Azande, Oxford: Clarendon Press.
13. Frazer JG. (1978). The Illustrated Golden Bough, London: Macmillan.
14. Barbara M. (2011). Cultural Anthropology. New Jersey: Pearson Education.
15. Ember CR. (2011). Anthropology. New Delhi: Dorling Kindersley.
16. Herskovits MJ. (1952). Economic Anthropology: A Study in Comparative Economics. New York: Alfred A Knopf Inc.
17. Malinowski B. (1922) Argonauts of the Western Pacific. London: Routledge.
18. Polyani K. et al (1957), Trade and Market in the Early Empires. Chicago: Henry Regnery Company.
19. Balandier G. (1972). Political Anthropology. Middlesex: Penguin.

3. ANT-HE 5036 Visual Anthropology
(Theory & Practical)

Course objective:

- To acquaint the students with the recent trend in visual representation of ethnography both from theoretical and practical perspectives.

Learning outcome:

- Students will learn the basic theories of Visual Anthropology.
- They will also learn the practical aspects of Visual Anthropology.

Theory credit 4

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

UNIT 2: Theory and Representation.

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

UNIT 3: Early Ethnographic Photography: Contexts and Trends.

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

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

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

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

Practical credit 2

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

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

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

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

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

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

Suggested readings

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

4. ANT-HE 5046 Anthropology of Health (Theory & Practical)

Course objective:

- To acquaint the students with a knowledge of anthropological perspective of health.

Learning outcome:

- Students will be familiar with the dimension health and diseases in particular cultures.

Theory credit 4

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

i. Health Anthropology within the context of Anthropology. The unique place of Health Anthropology in Anthropology; competing perspectives on the study of anthropology of health.

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

Looking at “health,” “illness” and related concepts in Western culture, including sociological “sick role” models, some important variations in the process of seeking health care.

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

Morbidity, Mortality, Epidemiology: meaning, scope and methods. Epidemiology of common communicable diseases: Malaria, Tuberculosis, Leprosy, Diabetes, Cardiovascular disease and Sexually Transmitted Diseases (STDs), HIV/AIDS,

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

Reproductive life, child Birth, family planning, adoption, male dominance, nursing and early nurture; hyper-menstruation and its corollaries.

Population variation and its relation to health and disease.

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

Effect of chronic disease in health, relationship between mental health and chronic disease and injury.

Understanding Stress and its effects cross-culturally; Mental disorder and related phenomena;

Diseases associated with specific sociocultural and environmental contexts: Kuru, osteomalacia, sickle cell anaemia.

Developmental and cultural adaptations to adverse conditions such as health threats.

Unit - 5: Variations in Health Care Systems: a comparative perspective.

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

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

i. Shamanism, Magic, and Healing. Shaman, Magic, Witchcraft and Sorcery,

ii. Folk Healers and "Alternative Medicine." Types of healers and healing, problems in evaluating efficacy; sources of dissatisfaction with mainstream medicine.

Unit - 7:

i. Health and Human Rights

Introduction to Human Rights, impact assessment of Public Health Policies.

ii. Legal Aspects & Future Prospects for Health

Rules and regulations of international health policy; Medico- Legal problems in relation to health administration, International health organization / NGOs; Medical Ethics; Critical issues in global health.

Practical credit 2

1. Make a Schedule on Health and Demography.

2. Calculation of Infant Sex ratio, Fertility rate, Total fertility rate, Mortality rate, Birth rate, crude birth rate, crude death rate, Mortality rate, life expectancy, immigration rate, population growth rate.

3. Identification and Characteristics of Various diseases.

4. Case Studies of Traditional and Modern healers.

Suggested Readings

1. Rajesh Khanna and A.K. Kapoor. 2007. Ethnic Groups and Health Dimensions. Discovery Publishing House, New Delhi.

2. Chin, James, M.D., M.P.H. (ed.) 2000. Control of Communicable Diseases Manual. 17th Edition. American Public Health Association.

3. Helman, Cecil G. 2001. Culture, Health, and Illness. 4th ed. London: Arnold.

4. Mann, Jonathon M., et al. (eds.) 1999. Health and Human Rights. New York: Routledge.

5. Albrecht, Gary L., Ray Fitzparick, and Susan C. Scrimshaw (eds.) 2000. The Handbook of Social Studies in Health and Medicine, SAGE Publications.

6. Bannerman, Robert, J. Burton, and Ch'en Wen-Chieh (eds.) 1983. Traditional Medicine and Health Care Coverage. Geneva: World Health Organization.

7. Helman, Cecil G. 1994. Culture, Health, and Illness. 3rd ed. Oxford: Butterworth- Heinemann.

8. Koop, C. Everett, Clarence E. Pearson, and M. Roy Schwartz (eds.) 2001. Critical Issues in Global Health. San Francisco: Jossey-Bass. A Wiley Company.

9. Mayer, Kenneth H. and H.F. Pizer (eds.) 2000. The Emergence of AIDS. The Impact on Immunology, Microbiology, and Public Health. Washington, D.C.: American Public Health Association.

10. Nichter, Mark and Mimi Nichter 1996. Anthropology and International Health. Asian Case Studies. Gordon and Breach Publishers.

5. ANT-HE 5056 Tribal cultures of India
(Theory & Practical)

Course objective:

- To impart knowledge on tribe concept and tribal problems, art and aesthetic, policies and provisions in India in general and the North-East India in particular.

Learning outcome:

- Knowledge about concept and tribal problems, art and aesthetic, policies and provisions in India in general will be gained.
- Knowledge about concept and tribal problems, art and aesthetic, policies and provisions in the North-East India in particular will be gained.

Theory credit 4

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

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

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

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

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

Unit VI: Tribes of North-East India- their distinctive culture and tradition

Practical credit 2

- i. Distribution of Indian Tribes: PTG, ST
- ii. Location of different tribes on the map of India
- iii. Write an annotated bibliography on any one tribe
- iv. Write the social structure of any one tribe of India

Suggested Readings:

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

6. ANT-HE 5066 Urban Anthropology
(Theory & Practical)

Course objective:

- To impart a understanding of the main focus areas of Urban Anthropology.

Learning outcome:

- Students will be familiar with studies in urban centre from anthropological perspectives.

Theory Credit 4

Unit 1: Emergence of Urban Anthropology

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

Unit 2: Political Economy

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

Unit 3: Class Approach

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

Unit 4: Urban Inequality and Disasters

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

Unit 5: Global Urban Developments

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

Practical credit 2

(i) Visit city life among business community and appreciate the role of culture with politics and economics.

(ii) Media-popular culture behaviour

(iii) Photo shoot in any city life, Creating captions and texts relating to urban anthropology findings.

Suggested readings

1. <http://www.oxfordbibliographies.com/>

2. Cities, classes and the social order. Anthony Leeds, Roger Sanjek

3. Childe, V. Gordon. 1950. "Urban Revolution." Town Planning Review

4. Low Reader Part V: "The Postmodern City" in Low pp. 317-377; Dear and Flusty.

5. "Anthropological Fieldwork in Cities", "The anthropology of Cities: Some Methodological Issues".

7. ANT-HE 6016 **Dissertation**
(Credit 6)

Course objective:

- To impart knowledge for conduct of ethnographic fieldwork to collect data applying anthropological methods and techniques.

Learning outcome:

- Students will be familiar with collection of data during fieldwork by applying anthropological methods and techniques.
- Knowledge of data processing and writing report for presentation will be gained.

Student will be required to prepare a dissertation or project work in the 6th Semester as one of the Discipline Specific Elective Papers. He / she will be attached to a Supervisor or Guide for the same.

8. ANT-HE 6016 **Human Genetics**
(Theory & Practical)

Course objective:

- To impart knowledge of basic human molecular genetics.

Learning outcome:

- Students will be familiar with structure and function of human genome.
- Students will learn how genomic variation is studied.
- Knowledge about genomic diversity and human evolution will be gained.

Theory Credit 4

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

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

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

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

Unit V: Genomic Diversity & Human Evolution

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

Practical credit 2

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

Suggested Readings:

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

Course objective:

- To impart knowledge of dermatoglyphics as a forensic tool.

Learning outcome:

- Students will be familiar with finger and palm print dermatoglyphics.
- Students will learn techniques of studying dermatoglyphics and method of developing prints for identification.

Theory Credit 4

Unit-I: Introduction to Dermatoglyphics: History and Development, scope and Applications.

Unit-II: Formation of fingerprint ridges, pattern types and patterns area. Classification of Fingerprints- Henry Classification, Vucetich System, Single-Digit Classification.

Unit-III: Types of Fingerprints: Plastic, Visible and Latent Prints. Conventional and Modern methods for development of latent fingerprints- Silver Nitrate, Ninhydrin, Iodine Fuming, Powder Methods, Metal Deposition Method, Small Particle Reagent and Laser Techniques.

Unit-IV: Basis of Fingerprint Comparison: Class Characteristics and Individual Characteristics, Determination of Identity.

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

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

Practical

1. Recording and Study of Finger and Palm Prints
2. Determination of palmar main line formula, Ridge count and indices
3. Comparison of Fingerprints and Palmprints on the basis of class and individual ridge Characteristics
4. Development of latent fingerprints using different chemical and powder methods.

Suggested Readings:

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

10. ANT-SE 6046

Demographic Anthropology
(Theory & Practical)

Course objective:

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

Learning outcome:

- Students will learn the basic knowledge of demography and its theories.
- Students will learn the tools used for studying population change.

Theory Credit 4

Unit I: Demographic Anthropology

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

Unit II: Population Theories

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

Unit III: Tools of Demographic Data

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

Unit IV: Population of India

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

Unit V: National policies

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

Practical credit 2

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

Suggested Readings

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

**11. ANT-HE 6056 Physiological Anthropology
(Theory & Practical)**

Course objective:

- To provide an understanding of the physiological aspects of human body.

Learning outcome:

- Students will learn the fundamentals of human physiology and physiological adjustment.
- Students will learn the cardiovascular and respiratory endurance and also the intrinsic extrinsic factors that influence human physiology.

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, haematocrit etc)

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

Unit III: Cardio-vascular and respiratory endurance, physical working capacity and physical fitness- evaluation of response and assessment; relationship of body measurements with cardio-vascular and respiratory functions.

Aerobic and anaerobic exercise training, health related fitness in gender and ethnic group.

Principles of effective physical conditioning techniques

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

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

Unit V: Ageing and health related aspects of exercise

Practical credit 2

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

Suggested Readings:

1. McArdle WD, Katch FI and Katch VL. (2010). Exercise Physiology: Nutrition, Energy, and Human Performance. Lippincott Williams & Wilkins.
2. Powers SK and Howley ET. (2007). Exercise Physiology: Theory and Application to Fitness and Performance. McGraw-Hill.
3. Sherwood L. (2008). Human Physiology: From Cells to Systems. Brooks Cole.
4. Case RM. (1985). Variations in Human Physiology. Manchester University Press.
5. Vander AJ, Sherman JH and Dorothys L. (1978). Human Physiology: The Mechanisms of Body Functions. Mc Graw-Hill Education.
6. Nageswari KS and Sharma S. (2006). Practical workbook of Human Physiology. Jaypee Brothers, Medical Publisher.
7. Wildmaier EP, Raff H, Strang KT. (2014). Vander's Human Physiology: The Mechanisms of Body. Mc Graw Hill Education.
8. Hale T. (2003). Exercise Physiology. England: John Wiley & Sons Inc.

**12. ANT-HE 6056 Sports and Nutritional Anthropology
(Theory & Practical)**

Course objective:

- To provide an understanding of the sports anthropology and nutritional aspect the people.

Learning outcome:

- Students will learn the relationship between body composition and sports.
- Students will also learn the association of health and nutrition, nutritional status and physical performance.

Theory Credit 4

Unit I: Anthropology of Sports- physical fitness, component of physical fitness

Unit II: Physical conditioning, training-techniques and physiological effects, environmental effects on physical performance: effect of heat stress, cold stress and high altitude on physiological response and performance.

Unit III: Body composition and athletes, sports selection and monitoring

Unit IV: Human biological variability, health and nutrition; doping and performance; cultural constructions and physiologic implications of food across time, space and society; an integrated bio-behavioural perspective towards food preference

Practical

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

Suggested Readings

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

Practical Credit-2

(25 marks)

Unit I: Somatometry (measurements to be taken on five subjects)

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

Necessary Indices: (1) Cephalic Index (2) Nasal Index (3) Total Facial Index

Unit II: Somatoscopy (to be taken on five subjects)

Somatoscopic observations:

5. Hair – colour, texture, form
6. Eye – colour, epicanthic fold
7. Nose – Bridge, septum, root
8. Skin – colour.

Suggested readings

1. Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). *Introduction to Physical Anthropology*. Wadsworth Publ., USA
2. Kroeber A. L. (1948). *Anthropology*. Oxford & IBH Publishing Co., New Delhi.
3. Stanford C., Allen J.S. and Anton S.C. (2010). *Exploring Biological Anthropology. The Essentials*. Prentice Hall Publ, USA.
4. Statement on Race: *Annotated Elaboration and Exposition of the Four Statements on Race* (1972). Issued by UNESCO. Oxford University Press.
5. Singh, IP and MK Bhasim. 2004. *A Manual of Biological Anthropology*. Kamala Raj Enterprises, Delhi.

2. ANT-HG 2016 Fundamentals of Socio-Cultural Anthropology Credit 6 (Theory 4 + Practical 2)

Course objectives:

- To impart conceptual and theoretical knowledge of social and cultural anthropology.
- To impart knowledge of material aspect of culture.

Course Outcome:

- Basic theoretical knowledge about social and cultural anthropology can be achieved.
- Practical knowledge of technology can be gained.

Theory Credit-4

Unit I:

Anthropological perspective and orientation;

Scope and relevance of Social Anthropology;

Relationship of Social Anthropology with other disciplines:

Sociology, Psychology, Economics, Political Science and History.

(20 marks)

Unit II:

Concepts- society and culture; status and role; groups and institution, caste and tribe, social stratification, and civil society. Social fact; social action; social conflict; social system. Characteristics of culture; culture and civilisation; aspects of culture- material and abstract; acculturation; enculturation; structure of culture- trait, complex, area; culture focus; variation and diversity in culture. (19 marks)

Unit III

Kinship and Descent: marriage and family with special reference to India. (18 marks)

Unit IV

Religion and Magic – concept, theories and functions. (18 marks)
Economic and Political institutions.

Practical Credit- 2

Technology (25 marks)

Drawing and description of ethnological specimens – hunting and warfare, fishing, agriculture, household implements and dress. Students should collect specimens of the material culture.

Suggested Readings

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

3. ANT-HG 3016 Fundamentals of Archaeological Anthropology Credit 6 (Theory 4+Practical 2)

Course objectives:

- To provide an understanding of the prehistoric and archaeological background of evolution, variation and continuity of human society and culture.

Course Outcome:

- Archaeological background of prehistoric, proto-historic and historic evolution of culture will be gained.
- Practical understanding of prehistoric culture will be gained through tool and pottery techniques.

Theory Credit- 4

Unit I: Definition and scope of archaeological anthropology; relation with other disciplines:

Archaeology, Physical Science (Physics, Chemistry), Geography, Geology, Palaeontology.

Division of prehistoric periods- stone and metal ages and their characteristic features. Concepts- artifact, assemblage, industry and culture; Field Archaeology, Ethno-archaeology and New-archaeology. (15 marks)

Unit II: Methods of studying archaeological anthropology. Estimation of Time and reconstruction of the past: Absolute dating method and relative dating methods.

Carbon₁₄ (C₁₄), Potassium Argon dating, Dendochronology, Stratigraphy and Typo-technology.

Methods of climatic reconstruction: palynology, paleontology. (15 marks)

Unit III: Significance of Pleistocene epoch in prehistoric archaeology. Major environment and climate changes of Pleistocene; glacial and interglacial, pluviation and interpluviation. (15 marks)

Unit IV: Understanding prehistoric culture: classification, bases, character.

Classification prehistoric tools: Typology, Technology and Functional.

Combination fabrication techniques and relative estimation of their efficiency. (15 marks)

Unit V: Earliest evidence of culture in the World: Konso, Olduvai Gorge, Attirampakkam, Isampur, Soanian and Madrasian (15 marks)

Practical Credit-2 (25 marks)

1. Typo-technological analysis of Prehistoric Tools (identification, interpretation and drawings):

i. Core Tool Types ii. Flake Tool Types iii. Blade Tool Types

iv. Microlithic Tool Type v. Neolithic Tool Type (20 marks)

2. Ceramic technology: Basic concepts, identification and drawing of hand-made and wheel-made pottery. (5 marks)

Suggested Readings

1. Allchin and Allchin (1993). *The Rise of Civilization of India and Pakistan*. Cambridge University Press

2. Bhattacharya D.K. (1978). *Emergence of Culture in Europe*, Delhi, B.R. Publication.

3. Bhattacharya D.K. (1979). *Old Stone Age Tools and Techniques*. Calcutta, K.P. Bagchi Company

4. Bhattacharya D.K. (1996). *Palaeolithic Europe*. Netherlands, Humanities Press.

5. Champion et al. (1984). *Prehistoric Europe*. New York, Academic Press.

6. Fagan B.M. (1983). *People of Earth: An Introduction*. Boston, Little, Brown & Company.

7. Phillipson D. W. (2005). *African Archaeology*. Cambridge, Cambridge University Press.

8. Sankalia H.D. (1964). *Stone Age Tools*. Poona Deccan College

4. ANT-HG 4016 Anthropology in Practice Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart a knowledge of history & development anthropology, ethnic elements in north-east India and diversity in India.

Course outcome:

- Students will learn the history and development of anthropology in India.
- Knowledge about the diversity in India and North-east in particular, with problems of tribes and constitutional provisions safeguarding their rights will be gained.

Theory Credit- 4

Unit I: Academic and Applied Anthropology

Academics and practitioners: differences, structure, activities, controversies and issues; Applied Anthropology, Action Anthropology and Development Anthropology. (15 marks)

Unit II: Role of Anthropology in Development

Anthropology and public policy, Need Assessment and Community Development, Anthropology of NGOs, Management Anthropology, Environment and Community Health, social and economic sustainability, Cultural Resource Management (15 marks)

Unit III: Future Directions in Anthropology

Trends in Anthropology: Anthropology of Tourism, Anthropology in Census; Designing and Fashion, Visual Anthropology, Medical Anthropology. Importance of Museums. (15 marks)

Unit IV: Constitutional Perspective and Human Rights

Constitutional Provisions, Evaluation, Planning and Development of Indian Populations; Human Rights, interrelationships of rights and duties: harmony and conflict, protection and enforcement of human rights and duties, National and State Human Rights Commission and other grievance redressal mechanism, human rights of special category and marginal groups, emerging trends of human rights respective to terrorism, environment and globalization (15 marks)

Unit V: Biosocial anthropology in practice

Bio-social elements of human development at national and international level, population dynamics and relationship between population growth and various aspects of culture such as means of subsistence, kinship, social complexity, social stratification and political organization, Bio-social counselling of an individual or population (15 marks)

Practical Credit- 2 (25 marks)

(A student may take up one of the following activities)

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

Suggested Readings

1. Arya A and Kapoor AK. (2012). Gender and Health Management in Afro-Indians.

Global Vision Publishing House, New Delhi.

2. Kertzner DI and Fricke T. (1997). *Anthropological Demography*. University of Chicago Press.
3. Basu, A. and P. Aaby (1998). *The Methods and the Uses of Anthropological Demography*. 329 pp. Oxford, Clarendon Press
4. Carter A. (1998). *Cultural Models and Demographic Behavior*. In *The Methods and the Uses of Anthropological Demography* edited by Basu A and Aaby P. Oxford: Clarendon Press. pp 246-268.
5. Census of India (2001, 2011) and National Family Health Survey (2006,2010).
6. Ervic, Alexander M., (2000). *Applied Anthropology: Tools and Perspectives for Contemporary Practice*, Boston, MA: Allyn and Bacon.
7. Erwin A. (2004). *Applied Anthropology Tools and Practice*, Allyn and Bacon.
8. Gupta S and Kapoor AK. (2009). *Human Rights among Indian Populations: Knowledge, Awareness and Practice*. Gyan Publishing House, New Delhi.
9. Willen SS. (2012). *Anthropology and Human Rights: Theoretical Reconsiderations and Phenomenological Explorations*. *Journal of Human Rights*. 11:150-159.
10. Goodale M. (2009). *Human Rights: An Anthropological Reader*. Wiley Blackwell.
11. Gupta S and Kapoor AK. (2007). *Human Rights, Development and Tribe*. In : *Genes, Environment and Health - Anthropological Perspectives*. K. Sharma, R.K. Pathak, S. Mehra and Talwar I (eds.). Serials Publications, New Delhi.
12. Margaret AG. (2003). *Applied Anthropology: A Career-Oriented Approach*, Boston, MA: Allyn and Bacon.
13. Halbar BG and Khan CGH. (1991). *Relevance of Anthropology - The Indian Scenario*. Rawat Publications, Jaipur.
14. Kapoor AK (1998). *Role of NGO's in Human Development: A Domain of Anthropology*. *J Ind Anthropol Soc*; 33:283-300.
15. Kapoor AK and Singh D. (1997). *Rural Development through NGO's*. Rawat Publications, Jaipur.
16. Kumar RK and Kapoor AK. (2009). *Management of a Primitive Tribe: Role of Development Dynamics*. Academic Excellence, Delhi.
17. Mehrotra N and Patnaik SM. (2008). *Culture versus Coercion: The Other Side of Nirmal Gram Yojna*, *Economic and Political weekly*. pp 25-27.
18. Mishra RC (2005). *Human Rights in a Developing Society*, Mittal Publications, Delhi.
19. Noaln RW. (2002). *Anthropology in Practice: Building a Career outside the Academy*. Publishing Lynne Rienner.
20. Patnaik SM (1996). *Displacement, Rehabilitation & Social Change*. Inter India Pub., New Delhi.
21. Patnaik SM (2007). *Anthropology of Tourism: Insights from Nagaland*. *The Eastern Anthropologist*. 60(3&4):455-470
22. Srivastav OS (1996). *Demographic and Population Studies*. Vikas Publishing House, India
23. Vidyarthi LP and BN Sahay (2001). *Applied Anthropology and Development in India*, National Publishing House, New Delhi.
24. Vidyarthi LP. (1990). *Applied Anthropology in India - Principles, Problems and Case Studies*. Kitab Mahal, U.P.
25. Vidyarthi V (1981). *Tribal Development and its Administration*. Concept Publishing Company, New Delhi.
26. Kalla AK and PC Joshi (eds.) (2003) *Tribal Health and Medicines*. Concept Publishing Company Limited, New Delhi.
27. Bhat, HK, PC Joshi and BR Vijayendra (eds.) (2013) *Explorations in Indian Medical Anthropology*. Concept Publishing Company Limited, New Delhi.

(Theory & Practical)
6 (Theo. 4+Pract. 2) Credits

Course objective:

- To impart knowledge of basic human molecular genetics.

Learning outcome:

- Students will be familiar with structure and function of human genome.
- Students will learn how genomic variation is studied.
- Knowledge about genomic diversity and human evolution will be gained.

Theory Credit 4

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 (15 marks)

Unit II: Expression of genetic information: from Transcription to Translation - the relationship between genes and protein, transcriptions; transcription and RNA processing, encoding genetic information, decoding the codons: the role of transfer RNAs (15 marks)

Unit III: Genomic Variation: Genomic Polymorphisms (SNPs, VNTR, CNVs, etc); haplotypes and haplogroups; genotype-phenotype correlations, epigenetics (15 marks)

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 (15 marks)

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 (15 marks)

Practical credit 2 (25 marks)

Students are to write on the following genetic related techniques/methods as assignment (5x5 marks):

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

Suggested Readings:

1. Strachan T and Read AP. (2004). Human Molecular Genetics. Garland Science
2. Brown TA. (2007). Genomes. Garland Science.
3. Griffiths AJF. (2002). Modern Genetic Analysis: Integrating Genes and Genomes. WH Freeman Press.
4. Griffiths AJF, Wessler SR, Carroll SB, Doebley J. (2011). An Introduction to Genetic Analysis. Macmillan Higher Education.
5. Cavalli-sforza LL, Menozzi P, Piazza A (1994). History and Geography of Human Genes. Princeton University.
6. Giblett, ER. (1969). Genetic Markers in Human Blood. Blackwell Scientific, Oxford.
7. Cummings MR (2011). Human Heredity: Principles and Issues. Brooks/Cole, Cengage Learning
8. Jobling M, Hurlb M and Tyler-Smith C. (2004). Human Evolutionary Genetics: Origins, Peoples & Disease. New York: Garland Science.

9. Lewis R. (2009). Human Genetics: Concepts and Application. The McGraw–Hill Companies, Inc.
10. Patch C. (2005). Applied Genetics in Healthcare. Taylor & Francis Group
11. Vogel F. and Motulsky A.G. (1996). Human Genetics. Springer, 3rd revised edition.
12. Snustad .D.P. and Simmons M.J. (2006). Principles of Genetics, Fourth Edition, John Wiley & Sons USA

6. ANT-HG 4036 Research Methods

Credit 6 (Theory 4+Practical 2)

Course objectives:

- To impart knowledge on research design, techniques of data collection, report writing and ethics of research in anthropology.

Course Outcome:

- Knowledge of formation of research design, application of methods & techniques in data collection is learnt.
- Ethics of research are learnt for an effective research study.

Theory Credit- 4

Unit I: Research Design

Review of literature, conceptual framework, formulation of research problem, formulation of hypothesis, sampling, tools and techniques of data collection, data analysis and reporting, guiding ideals and critical evaluation of major approaches in research methods, basic tenets of qualitative research and its relationship with quantitative research. (15 marks)

Unit II: Field work tradition in Anthropology

Ethnographic approach, contribution of Malinowski, Boas and other pioneers; cultural relativism, ethnocentrism, etic and emic perspectives, comparative and historical methods, techniques of rapport establishment, identification of representative categories of informants, maintenance of field diary and logbook. (15 marks)

Unit III: Tools and techniques of data collection

Concept of survey, relationship of survey method with ethnographic method, construction of questionnaire and interview schedule, validation and internal consistency of questionnaire
 Observation - Direct, Indirect, Participant, Non-participant, Controlled
 Interview - Structured and unstructured, Focused Group Discussion, key informant interview
 Case Study and Life History; Genealogy - Technique and application

Unit IV

1. Identify, define, and analyze ethical issues in the context of human subject research.
2. Issues of academic fraud and plagiarism, conflicts of interest, authorship and publication, Analysis and Writing Up
3. Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, review and index.
4. Similarities and differences between qualitative and quantitative data analysis; introduction of software for data analysis. (15 marks)

Unit V: Bio-Statistics

1. Types of variables, presentation and summarization of data (tabulation and illustration).
2. Descriptive statistics- Measures of Central Tendency, Measure of Variation, Skewness and Kurtosis, Variance and standard deviation, Normal and binomial distribution.

3. Tests of Inference- Variance ratio test, Student's "t" tests, Chi-square test and measures of association.
4. Pedigree Analysis- Importance and implication. (15 marks)

Practical Credit- 2 (25 marks)

A student should perform one of the following:

1. Construction of Genealogy of a kin group
4. Case study and life history techniques and report
5. Project report writing- preparation of research problem, study design, data collection techniques, analysis and report writing based on somatometric, dermatoglyphic and serological data or social problem/ data.

Suggested Readings

1. Garrard E and Dawson A. *What is the role of the research ethics committee? Paternalism, inducements, and harm in research ethics*. Journal of Medical Ethics 2005; 31: 419-23.
 2. Bernard H.R. *Research Methods in Anthropology, Qualitative and Quantitative Approaches*. Jaipur: Rawat Publications. 2006.
 4. Madrigal L. *Statistics for Anthropology*. Cambridge: Cambridge University Press. 2012.
 5. Zar JH. *Biostatistical Analysis*. Prentice Hall. 2010.
 6. Michael A. *The Professional Stranger*. Emerald Publishing. 1996.
 7. Bernard R. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. AltaMira Press. 2011.
 8. Emerson RM, Fretz RI and Shaw L. *Writing Ethnographic Fieldnotes*. Chicago, University of Chicago Press. 1995.
 9. Lawrence NW. *Social Research Methods, Qualitative and Quantitative Approaches*. Boston: Allyn and Bacon. 2000.
 10. O'reilly K. *Ethnographic Methods*. London and New York: Routledge. 2005.
 11. Patnaik S.M. *Culture, Identity and Development: An Account of Team Ethnography among the Bhil of Jhabua*. Jaipur: Rawat Publications. 2011.
 12. Pelto PJ and Pelto GH. *Anthropological Research, the Structure of Inquiry*. Cambridge: Cambridge University Press. 1978.
 13. Sarantakos S. *Social Research*. London: Macmillan Press. 1998
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