

Learning Outcomes Based Curriculum Framework (LOCF)

for

Anthropology

Postgraduate Programme



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PART I

1.1 Introduction

Anthropology poises itself as a discipline of infinite curiosity about human beings. As the study of humankind, it seeks to produce useful generalisations about people and their behaviour to arrive at the fullest possible understanding of human diversity. Anthropologists try to seek answers to an enormous variety of questions about humans. They are interested in discovering when, where and why humans first appeared on the earth; how and why they have changed since then; how and why modern human populations vary/overlap in certain physical features. They are also interested in knowing how and why societies in the past and present have similar/different norms, values, customs, beliefs and practices.

Anthropology is now a global discipline both through engaging in research everywhere (at least in principle) and in having local practitioners everywhere (Ulf Hannerz:2010) Anthropologists are generally thought of as individuals who travel to little known corners of the world to study peoples with simple technology or who dig deep into the earth to uncover the fossil remains or tools of people who lived long ago. Beginning with the earliest humans, who lived millions of years ago, anthropology traces human development from the beginning till the present. In fact, every human population, and not just the tribes and peasants, as is often made out, is of interest to anthropologists. Anthropologists not only study all varieties of people, they also study all aspects of human population. For example, when describing a group of people, an anthropologist might discuss the history of the area in which the people live, the physical environment, the social organisation, the general features of their language, the group's settlement patterns, political and economic systems, religion, styles of art and dress. Some are of course concerned primarily with biological or physical characteristics of human populations; others are interested principally in what we call cultural or linguistic characteristics. There are also some who study the prehistoric cultures and still others who study the human languages in order to understand their culture and society.

This postgraduate programme in anthropology is designed to introduce the basic concepts of the subject and to enable the students to analyse and understand the current socio-cultural problems, issues and challenges through the application of disciplinary knowledge. The programme covers fundamental concepts of the subject - the society, culture, human-nature interaction, human genetics, world views and policy research. The programme is designed in such a manner that it enables the students to apply anthropological knowledge to identify a wide range of contemporary problems and issues

and acquire research skills to produce research findings using field work techniques, statistical tools and genetic studies.

1.2 Learning Outcomes-based Approach to Curriculum Planning and Development

The basic objective of the learning outcome based approach to curriculum planning and development is to focus on demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes and values) and academic standards expected of graduates of a programme of study. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study.

The expected learning outcomes are used to set the benchmark to formulate the course outcomes, programme specific outcomes, programme outcomes and graduate attributes. These outcomes are essential for curriculum planning and development, and in the design, delivery and review of academic programmes. They provide general direction and guidance to the teaching-learning process and assessment of student learning levels under a specific programme.

The overall objectives of the learning outcomes-based curriculum framework are to:

- help formulate graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes that are expected to be demonstrated by the holder of a qualification;
- enable prospective students, parents, employers and others to understand the nature and level of learning outcomes (knowledge, skills, attitudes and values) or attributes a graduate of a programme should be capable of demonstrating on successful completion of the programme of study;
- maintain national standards and international comparability of learning outcomes and academic standards to ensure global competitiveness, and to facilitate student/graduate mobility; and
- provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and periodic review of programmes and academic standards.

1.3 Key outcomes underpinning curriculum planning and development

The learning outcomes-based curriculum framework is a framework based on the expected learning outcomes and academic standards that are expected to be attained by graduates of a programme of study. The key outcomes that underpin curriculum planning and development include Graduate Attributes, Programme Outcomes, Programme

Specific Outcomes, and Course Outcomes.

1.3.1 Graduate Attributes

The disciplinary expertise or technical knowledge that has formed the core of the university courses. They are qualities that also prepare graduates as agents for social good in future. Some of the characteristic attributes that a graduate should demonstrate are as follows:

1. **Disciplinary knowledge:** Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines
2. **Research-related skills:** A sense of inquiry and capability for asking relevant/appropriate questions, problematising, synthesising and articulating
3. **Analytical reasoning:** Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others
4. **Critical thinking:** Capability to apply analytic thought to a body of knowledge
5. **Problem solving:** Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems
6. **Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally
7. **Information/digital literacy:** Capability to use ICT in a variety of learning situations; demonstrate an ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.
8. **Self-directed learning:** Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.
9. **Cooperation/Teamwork:** Ability to work effectively and respectfully with diverse teams
10. **Scientific reasoning:** Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective
11. **Reflective thinking:** Critical sensibility to lived experiences, with self-awareness and reflexivity of both self and society.
12. **Multicultural competence:** Possess knowledge of the values and beliefs of multiple cultures and a global perspective
13. **Moral and ethical awareness/reasoning:** Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work
14. **Leadership readiness/qualities:** Capability for mapping out the tasks of a team or an organization, setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, smoothly and efficiently.

15. **Lifelong learning:** Ability to acquire knowledge and skills, including ‘learning how to learn’, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of the work place through knowledge/skill development/reskilling.

1.3.2 Programme Outcomes (POs) for Postgraduate programme

POs are statements that describe what the students graduating from any of the educational programmes should be able to do. They are the indicators of what knowledge, skills and attitudes a graduate should have at the time of graduation.

1. **In-depth knowledge:** Acquire a systematic, extensive and coherent knowledge and understanding of their academic discipline as a whole and its applications, and links to related disciplinary areas/subjects of study; demonstrate a critical understanding of the latest developments in the subject, and an ability to use established techniques of analysis and enquiry within the subject domain.
2. **Understanding Theories:** Apply, assess and debate the major schools of thought and theories, principles and concepts, and emerging issues in the academic discipline.
3. **Analytical and critical thinking:** Demonstrate independent learning, analytical and critical thinking of a wide range of ideas and complex problems and issues.
4. **Critical assessment:** Use knowledge, understanding and skills for the critical assessment of a wide range of ideas and complex problems and issues relating to the chosen field of study.
5. **Research and Innovation:** Demonstrate comprehensive knowledge about current research and innovation, and acquire techniques and skills required for identifying problems and issues to produce a well-researched written work that engages with various sources employing a range of disciplinary techniques and scientific methods applicable.
6. **Interdisciplinary Perspective:** Commitment to intellectual openness and developing understanding beyond subject domains; answering questions, solving problems and addressing contemporary social issues by synthesizing knowledge from multiple disciplines.
7. **Communication Competence:** Demonstrate effective oral and written communicative skills to convey disciplinary knowledge and to communicate the results of studies undertaken in an academic field accurately in a range of different contexts using the main concepts, constructs and techniques of the subject(s) of study
8. **Career development:** Demonstrate subject-related knowledge and skills that are relevant to academic, professional, soft skills and employability required for higher education and placements.

9. **Teamwork:** Work in teams with enhanced interpersonal skills and leadership qualities.
10. **Commitment to the society and to the Nation:** Recognise the importance of social, environmental, human and other critical issues faced by humanity at the local, national and international level; appreciate the pluralistic national culture and the importance of national integration.

1.3.3 Programme Specific Outcomes (PSOs) in Anthropology

Programme specific outcomes include subject-specific skills and generic skills, including transferable global skills and competencies, the achievement of which the students of a specific programme of study should be able to demonstrate for the award of the degree. The programme specific outcomes would also focus on knowledge and skills that prepare students for further study, employment, and citizenship. They help ensure comparability of learning levels and academic standards across universities and provide a broad picture of the level of competence of graduates of a given programme of study. The attainment of PSOs for a programme is computed by accumulating PSO attainment in all the courses comprising the programme.

1. **Basic Concept:** Ability to interpret and analyze various concepts and theories of physical and human geography.
2. **Understanding Landscape:** An understanding of landscape at different levels by examining changing interactions at different spatial and temporal scales.
3. **Understanding human-environmental issues:** Explain the societal relevance of geographical knowledge and apply it to real-world human-environmental issues. Analyze geographical data and interpret its significance within the context of human-environment relations.
4. **Cartographic Knowledge:** Display an ability to read and understand maps and topographic sheets to look at the various aspects of the space.
5. **Application of Geospatial tools and techniques:** Understanding the concepts, principles and applications of geospatial tools and techniques.
6. **Use of Statistical Techniques:** Use of statistical tools and techniques for precise and objective geographic analysis and interpretation of complex phenomena.
7. **Field knowledge and case study-based analysis:** Conducting field works to understand the ground reality, spatial patterns and processes. Application of case study based analysis to identify solutions to various Spatio-temporal issues.
8. **Applied Dimension:** Identification of the critical problems and spatial issues form the core of the modern geography for various applications and decision making, including Resources, Environment & Disaster Management, Land Use Planning, and Urban and Regional Development together with Climate Change Mitigation and Adaptation, etc.

9. **Research and Innovation:** Use of geographical knowledge to identify a wide range of contemporary problems and issues and acquire research skills to produce a well-researched written work using geographical research tools.
10. **Public Policy:** Understand existing public policies of the state and apply and evaluate them in a specific study context.
11. **Critical thinking:** Able to identify critical problems and spatial issues related to policy and sustainable development.
12. **Communication Skill:** Communicate anthropological concepts and data effectively using oral and written forms

1.3.4 Course Level Learning Outcome Matrix

Course Level Learning Outcomes Matrix – Core Course

Programme Specific Outcomes	701	702	703	704	705	801	802	803	804	805	901	902	903
Basic Concepts	x	x	x	x	x	x	x	x	x	x	x	x	X
Understanding society	x	x	x	x	x	x	x		x	x	x	x	
Understand bio-social aspects		x	x	x		x	x	x			x		
Fieldwork tradition				x	x	x				x			
Applied Dimension	x				x	x				x			
Use of data and statistical tools	x	x		x	x	x	x		x	x	x	x	x
Field knowledge & case study-based analysis				x			x				x		
Applied dimensions	x	x	x	x	x	x		x	x	x	x	x	x
Research and innovations	x	x	x	x	x	x	x		x	x	x	x	x
Public policy		x		x		x	x				x	x	
Critical thinking		x	x	x			x				x	x	x
Communication skills	x	x	x	x	x	x	x	x	x	x	x	x	x

Course Level Learning Outcomes Matrix – Special papers

Outcomes	904 SP1	904 SP2	904 SP3	904 SP4	904 SP5	904 SP6	905E	1001C	1004 DPW	1003 OPE
Basic Concepts	x	x	x	x	x	x	x	x	x	x
Understanding Landscape	x	x	x	x	x		x	x	x	x
Understand bio-social aspects			x		x	x	x	x	x	x

Fieldwork tradition	x	x	x	x	x	x			x	x
Applied Dimension	x	x							x	x
Use of data and statistical tools		x	x	x	x	x			x	x
Field Skill based knowledge			x			x	x	x	x	
Applied dimensions	x	x	x	x	x	x		x	x	x
Research and innovations	x	x	x	x	x	x	x	x	x	x
Public policy	x		x		x	x	x		x	x
Critical thinking			x			x		x	x	x
Communication skills	x	x	x	x	x	x	x	x	x	x

Course Level Learning Outcomes Matrix – **Special papers**

Outcomes	1002SP1	1002SP2	1002SP3	1002SP4	1002SP5	1002SP6
Basic Concepts	x	x	x	x	x	x
Understanding society	x	x	x	x	x	x
Understanding Bio-social aspects	x		x		x	x
Fieldwork tradition	x		x	x	x	x
Applied Dimension	x	x				
Use of data and statistical tools	x	x	x	x	x	x
Skill-based knowledge			x		x	x
Applied dimensions	x	x	x	x	x	x
Research and innovations	x	x	x	x	x	x
Public policy	x		x		x	
Critical thinking			x			x
Communication skills	x	x	x	x	x	x

1.4 Teaching-learning process

The department of Anthropology, Cotton University has student-centric teaching-learning pedagogies to enhance the learning experiences of the students. All classroom lectures are interactive in nature, allowing the students to have meaningful discussions and question and answer sessions. Apart from the physical classes, lectures are also held in online mode where students can have doubt clearing and discussions with the teachers. Most of the teachers use ICT facilities with power-point presentations, e-learning platforms and other innovative e-content platforms for student-centric learning methods.

The Department has adopted participative teaching-learning practices, which includes seminars, presentations and group discussions. These participative teaching-learning practices are included in the curricula of almost all the courses. Apart from these, exposure visits, special lectures by invited experts, workshops, and National/International seminars are held to augment knowledge, encourage innovative ideas and expose the students to global academic and research advancement.

The short-term projects, research projects, assignments and field works, which are the integral components of all the courses, enable the students to solve practical problems. Students are also being engaged in sample surveys, data collection and analysis works of the in-house and external research projects for acquiring experiential learning. The laboratories of the department offer hands-on learning experiences to the students.

1.5 Assessment methods

A variety of assessment methods that are appropriate to the discipline are used to assess progress towards the course/programme learning outcomes. Priority is accorded to formative assessment. Progress towards achievement of learning outcomes is assessed using the following: closed-book examinations; problem-based assignments; practical assignment; laboratory reports; individual project reports (case-study reports); team project reports; oral presentations, including seminar presentation; viva voce interviews; computerised testing and any other pedagogic approaches as per the context.

PART II

Structure of Post-Graduate Programme in Anthropology

I. Outline of the courses under Choice Based Credit System:

The Postgraduate programmes consist of four semesters with minimum credits required for the complete programme being 84 while the M.C.A. programme will be of six semesters with minimum credit requirement being 118.

Each course in a programme will be from one of the following categories:

1. Core Course (Core): A course that should compulsorily be studied by a candidate as a core requirement is termed a Core Course. Each core course is of 4 credits.

2. Lab Course (LAB): A Lab (Laboratory) course is a compulsory course in the first two semesters of the M.Sc. programme where the major part of the study involves laboratory work. Each Lab course is of 4 credits.

3. Elective Course: A course that can be chosen from a pool of courses and which may extend the discipline/subject of study or provides exposure to some other discipline/subject or which enhances the student's proficiency or skill is termed an Elective course.

(i) **Special Paper (SPL):** A course within the parent department that will lead to specialized knowledge and expertise. Each SPL course is of 5 credits.

(ii) **Open Elective (OPE):** An elective course offered under the main discipline/subject of study is an Open Elective and may be offered to students of other disciplines. A student from a given discipline will be eligible to take one open elective in the third semester and one in the fourth semester. Each OPE course is of 4 credits.

(iii) **Skill Enhancement Course (SEC):** These courses may be chosen from a pool of courses designed to provide skill-based knowledge and should ideally contain both theory and lab/hands-on/training/fieldwork. The primary purpose is to provide students with lifeskills in hands-on mode to increase their employability. Each SEC course is of 2 credits.

4. Practical/Tutorials: A practical or tutorial component (or both) is to be provided with every core and special paper/open elective paper.

5. Dissertation/Project Work (DPW): A course designed for students to acquire special/advanced knowledge that they study on their own with advisory support by a teacher/faculty member is a dissertation/project work. A DPW course is of 6 credits.

- The credits for a course will be of the structure L+T+P, where L, T and P stand for lecture, tutorial and practical respectively.

- Each 4 credit course with practical is of the pattern 3+0+1=4 and for a 4 credit course without practical, the pattern is 3+1+0=4.
- For the 5 credit courses with practical the credit division will be either 3+0+2=5 or 3+1+1=5 and will be decided by the department offering that course. For a course without practical, the structure will be 4+1+0=5.
- The credit division for the Lab course of 4 credits will be 0+0+4=4. For certain disciplines, the 4 credits may be divided between fieldwork and laboratory.
- Each Open Elective OPE course will be open to students from other disciplines subject to requirements of previous knowledge required to take that course.
- A student may choose an OPE course from his/her own discipline or any other discipline. The decision of whether an OPE course may be offered to students of other departments as well as students of the parent department will be taken by the department and the course designed accordingly.
- For the purpose of computation of workload, the mechanism adopted will be:

1 credit = 1 theory period of 1 hour duration per week.

1 credit = 1 tutorial period of 1 hour duration per week.

1 credit = 1 practical period of 2 hours duration per week.

II. Distribution of Courses and Credits

Postgraduate Programme (Science)

A student in the M.Sc. programme will take the following minimum number of courses in different categories of courses:

Table 1: Credit distribution for courses: M.Sc.

Category	Number of courses	Credits for each course	Total Credits
Core	12	4	48
LAB	2	4	8
SEC	2	2	4
SPL	2	5	10
OE	2	4	8
DPW	1	6	6
			84

The distribution of credits and courses in each of the four semesters for the M.Sc. programme will be according to the following scheme:

Sem	Core	LAB	SEC	SPL	OPE	DPW	Credit
I	C1(4) C2(4) C3(4) C4(4)	LAB1(4)	SEC1(2)				22
II	C5(4) C6(4)	LAB2(4)	SEC2(2)				22

	C7(4) C8(4)						
III	C9(4) C10(4) C11(4)			SPL1(5)	OE1(4)		21
IV	C12(4)			SPL2(5)	OE2(4)	DPW(6)	19
Credit	48	8	4	10	8	6	84

Programme Specific Outline

The Post Graduate program will provide the students the comprehensive knowledge of the discipline as well as its multidisciplinary and interdisciplinary approaches. The course will enable the students to develop a theoretical base as well as practical application of its various aspects. It will develop the ability to demonstrate the use of knowledge in tackling Anthropology-related problems. The course is designed for the students to recognize the importance of qualitative as well as quantitative data and approaches for fully comprehending the human society. The students will develop professional ethics in their careers.

SEMESTER- I

PAPER NO	TITLE OF THE PAPER	CREDITS
ANT 701C	Social and Cultural Anthropology	3+1+0
ANT 702C	Primate and Human Evolution	3+1+0
ANT 703C	Core Issues in Archaeological Anthropology	3+1+0
ANT 704C	Language, Culture and Society	3+1+0
ANT 705C	Biological Anthropology	0+0+4

SEMESTER- II

PAPER NO	TITLE OF THE PAPER	CREDITS
ANT 801C	Anthropological Theories	3+1+0
ANT 802C	Research Methodology and Fieldwork in Anthropology	2+0+3

ANT 803C	Human Genetics	3+1+0
ANT 804C	Prehistoric Cultural Pattern in the Old World	3+1+0
ANT 805C	Lithic and Ceramic Technology	0+0+4

SEMESTER- III

For Semester III and IV, Students will be required to choose any one of the specializations:

A. Advanced Social and Cultural Anthropology

B. Advanced Biological Anthropology

C. Advanced Archaeological Anthropology

However, there are three papers common for all

PAPERS COMMON FOR ALL		
PAPER NO	TITLE OF THE PAPER	CREDITS
ANT 901C	Anthropology and Gender	3+1+0
ANT 902C	Human Growth and Development	3+1+0
ANT 903C	Prehistory and Protohistory of South Asia	3+1+0
A. Advanced Social and Cultural Anthropology		
ANT 904 SP1	Anthropology of Development	3+2+0
ANT 905 OE1	Visual and Communication Anthropology	2+1+1
B. Advanced Biological Anthropology		
ANT 904 SP2	Anthropological Demography	3+2+0
ANT 905 OE2	Anthropology of Health and Nutrition	3+1+0
C. Advanced Archaeological Anthropology		
ANT 904 SP3	Ethno-archaeology and Prehistoric Economic Pattern	4+1+0
ANT 905 OE3	Cultural Resource Management (CRM)	3+0+1

SEMESTER- IV

PAPER COMMON FOR ALL THE GROUPS		
PAPER NO	TITLE OF THE PAPER	CREDITS
ANT 1001C	Anthropology of North-East India	3+1+0
GROUP PAPERS		
A. Advanced Social and Cultural Anthropology		
ANT1002 SP1	Applied and Rural-Urban Anthropology	3+2+0
ANT1003OE1	Ethnography: Theory and Methods	2+2+0
B. Advanced Biological Anthropology		
ANT1002 SP2	Biological Anthropology and Population Variation	3+2+0
ANT1003OE2	Dental Anthropology	2+2+0
C. Advanced Archaeological Anthropology		
ANT1002SP3	Research Methodology in Archaeological Anthropology	3+1+1
ANT1003OE3	Environmental Archaeology	3+1+0
ANT 1004DPW	DISSERTATION	0+0+6

SEMESTER- I
PAPER: ANT 701C
SOCIAL AND CULTURAL ANTHROPOLOGY
CREDITS: 4 (3+1+0)

COURSE OUTLINE---- The course develops in-depth discussions on the major themes and concerns of social and cultural anthropology ranging from the concept of culture, related theories and terms, organization of culture and society to an overview of major social institutions. At the end of the course, the students are expected to have an understanding of

- The central position of anthropology as an academic discipline and its distinctiveness;
- Identity, scope and limitations of Social and Cultural Anthropology;
- Major concepts and related terms of Social and Cultural Anthropology;
- The concepts of culture and society, different institutions and their interrelatedness.

The learning outcomes of this paper are:

- The student gets to know the scope of Socio cultural anthropology.
- To get a comprehensive idea of the basic concepts of social and cultural anthropology.
- They also learn in detail about the basic social institutions.

Unit I: Introducing Social and Cultural Anthropology, Scope and relations with other branches of anthropology and other cognate disciplines- Sociology, History, Psychology and Linguistics.

Unit II: Concept of Culture: Attributes of Culture; Structure of Culture: Culture trait, culture complex, culture area; Ethno-centricism Vs Cultural relativism and xenophobia, cultural revivalism and Syncretism; Dynamics of culture: Evolution, Diffusion, Acculturation and transculturation, innovation.

Unit III: Institutional overview: Family: typology, residence, functions; Marriage: typology, mate selection: cross-cousin, sororate, etc. dowry and bride price. Kinship: kin- consanguine, affinal; kin group: tribe, class, moiety, phratry; kinship terminology: classificatory and descriptive, terms of reference and address; kinship behaviour: joking and avoidance relationship. Social stratification: status and role.

Unit IV: The Arts: Anthropological Study of Art, Verbal Arts- Myth, Legend, Tale, Art of Music, Pictorial Art, Functions of Art, Forms of Tribal (Indian) Arts.

Unit V: Economic Anthropology: Concept of Property and Division of Labour. Trade and Barter. Systems of Distribution: Reciprocity, Redistribution and Market.

Unit VI: Political Organisation: Politics and Power; Political systems in stateless societies; agrarian social structure. Colonialism and Neocolonialism.

Suggested Readings:

Barth, Frederick. 1969. *Ethnic Group Boundaries*.

Barnet, H.G. *Innovation: The Basis of Culture Change*.

Dalton, George. Tribal and Peasant Economies: Readings in Economic Anthropology.

Doshi, S. L. 2001. *Social Anthropology*. New Delhi: Rawat.

Evans-Prichard, E.E. *Social Anthropology*

Foster, G.M. *Traditional Cultures and Impact of Technological Change*

Fox, Robin. *Kinship and Marriage*.

Harris, Marvin. *Cultural Anthropology*.

Herskovits. *Man and His Works*.

Herskovits, Melville. 1974 (Indian Reprint). *Economic Anthropology*. New Delhi: Eurasia Publishing House (P) Ltd.

Honigman J. *Handbook of Social and Cultural Anthropology*.

Kluckhohn, C. *Mirror for Man*.

Malinowski, B.A. *Scientific Theory of Culture and Other Essays*

Mair, Lucy. *An Introduction to Social Anthropology*. Oxford University Press

Rogers, E.M. & Shoe Maker, F.F. *Communication of Innovation*.

Rogers, E.M. *Diffusion of Innovation*.

Radcliffe Brown, A.R. *Structure and Function in Primitive Society*.

Sahlins & Service. *Evolution and Culture*. The University of Michigan Press, Ann Arbor

Uberoi, P. 1993. *Family, Kinship and Marriage in India*. Delhi: OUP.

PAPER: ANT 702C
PRIMATE AND HUMAN EVOLUTION
CREDITS: 4 (3+1+0)

COURSE OUTLINE ----- The course aims to

- Trace the evolution of primates dealing with both the living and fossil ones.
- The different theories leading to the origin and evolution of man are also dealt with.

Learning Outcomes

The learning outcomes of this paper are:

- The students will learn about various theories related to human evolution and variation.
- They will learn about major evolutionary stages of human evolution from Pleistocene to Holocene epoch.
- They will learn the anatomical modification in the human skeleton due to assumption of erect posture and bipedal locomotion.
- They will also learn about the relationship and differences between non-human and human primates.

Unit I: Classification of living Primate; salient features and distribution; Social behaviour of non-human primates.

Unit II: Human origin and Evolution: Gradualism and Punctuated equilibrium; Theories of organic evolution: Synthetic theory, Mutation theory, Germplasm theory.

Unit III: Hominid Evolution: erect posture and bipedalism; Comparative anatomy of Man and Apes.

Unit IV: Fossil evidence: Australopithecines: Australopithecus gracile and robustus, Homo erectus: Sinanthropus pekinensis, Neanderthal: Classic and progressive,

Homo sapiens sapiens.

Unit V: Hypotheses of human evolution: Multiregional hypothesis and Out of Africa Hypothesis.

Unit VI: Microevolution: Concept and evidences.

Recommended Readings:

- Brace, C. Loring, *The Stages of Human Evolution*, Prentice Hall, New Jersey, 1991.
- BuettnerJanusch, J., *Origins of Man*, Wiley Eastern Pvt. Ltd., New Delhi, 1969.
- BuettnerJanusch, J., *Physical Anthropology: A Perspective*, John Wiley and Sons, New York, 1973.
- Cartmill, M., Smith, F. H., *The Human Lineage*, 1st Edition, Kaye B. Brown (Series Editor), Wiley-Blackwell, New Jersey, 2009.
- Comas, Juan, *Manual of Physical Anthropology*, Charles C. Thomas, Illinois, 1960.
- Das, B M. *Outline of Physical Anthropology (26th Edition)*. Kitab Mahal, Allahabad, 2008.
- Das, B.M. and Deka, R., *Physical Anthropology Practical*, Kitab Mahal, Allahabad, 1996.
- Dodsan, E.O., *Evolution Process & Product*, Reinhold Pub Corp., New York, 1960.
- Harrison GA, Tanner JM, Pilbeam DR and Baker PT, *Human Biology: An Introduction to Human Evolution, Variation and Growth and Adaptability 3rd edition*. Oxford University Press. Oxford, 1988.
- Hooton, A.E., *Up from the Ape*, Macmilan, Delhi, 1965.
- Hooton, A.E., *Up from the Ape*, Macmilan, Delhi, 1965.
- Lasker, G.W., *Physical Anthropology*, Holt, Rinehart &Wiston, New York, 1976.
- Le Gros Clark, W.E., *Fossil Evidence of Human Evolution*, Univ. Press. Chicago, 1978
- Le Gros Clark, W.E., *History of Primates, Natural History Museum*, London, 1949.
- Le Gros Clark, W.E., *The Antecedents of Man*, Univ. Press. Edinburgh, 1978.
- Montagu, M.F.A., *An Introduction to Physical Anthropology*, Charles C. Thomas, Illinois, 1961.
- Mukherji, D., Mukherjee, D, Bharati, P., *Laboratory Manual for Biological Anthropology*, Asian Books Pvt. Ltd., New Delhi, 2009.
- Nystrom, P., Ashmore, P., *The Life of Primates*, PHI Learning Pvt. Ltd., New Delhi, 2011.
- Sarkar, R M. *Fundamentals of Physical Anthropology*. Vidyodata Library Pvt. Ltd. Calcutta, 1997.
- Sen, Tulika, *Guide to Anthropometry*. The World Press. Kolkata, 1994.
- Simpson, G.G. *Principles of Animal Taxonomy*, Columbia Univ. Press, New York, 1961.
- Singh IP and Bhasin MK., *Anthropometry*. KamalaRaj Enterprises. Delhi, 1989.
- Singh, IP and Bhasin MK. *A Manual of Biological Anthropology*. Kamala Raj Enterprises. Delhi, 2004.

Underwood, J.H., *Human Variation and Human Microevolution*, Prentice Hall, Inc., New Jersey, 1979.

PAPER: ANT 703C
CORE ISSUES IN ARCHAEOLOGICAL ANTHROPOLOGY
CREDITS: 4 (3+1+0)

COURSE OUTLINE-----The paper deals with time perspective in Anthropology. The main focus of the paper is

- To highlight the anthropological perspectives of archaeological material in order to throw light on the emergence and evolution of human cultures.
- It indicates the relevance of palaeo-environment, chronology, typo-technologies and culture –construct which also establishes the relationship of projecting the anthropological significance of archeological data in the understanding of human evolution.

The learning outcomes of this paper are:

- The students will learn Archaeology as Anthropology and its different branches.
- They will learn about the different Archaeological data and about the conservation and preservation of Archaeological sites with special reference to the constitutional provisions of conservation of Archaeological sites in India.
- Students will learn about cultural chronology of pre- historic period and quaternary environment.
- They will learn about scientific methods of data collection in Archaeological field work.
- They will learn about different tools type of pre-historic period, raw materials used for making these tools and also about pottery technology.

Unit I: Introducing Archaeological Anthropology

- A. Archaeology as Anthropology; Branches of Archaeology: Pre-historic, Proto-historic, Early Historic and Medieval Archaeology ; Industrial Archaeology

(Basic concept)

- B. Conceptual /Theoretical development in Archaeology Antiquarian stage, Culture History, Reconstruction of life ways, New or Processual archaeology, Post-processual or interpretative archaeology.
- C. Basic concepts and emergence of Palaeo-anthropology, Environmental archaeology (Bio-archaeology and Geo-archaeology), Ethno-archaeology; Experimental archaeology; Salvage Archaeology and Public archaeology and relevance in archaeological interpretation.

Unit II: Archaeological Record –

- A. Concept of culture, archaeological data, and archaeological context – primary, secondary and spatial.
- B. Archaeological Sites - Type and Nature,

Unit III: Introducing Cultural Chronology

- A. Palaeolithic, Mesolithic, Neolithic, Chalcolithic, Bronze Age, Iron Age
- B. Three Age System, Relevance in Indian Context

Unit IV: Quaternary Environment - Pleistocene and Post Pleistocene climatic Changes. Effects on earth surface

Unit V: Archaeological Field Methods – Exploration, Excavation

Unit VI: Lithic Raw Materials

Properties and Behaviour of basic rock types used in Prehistoric period

Unit VII: Pottery Technology – Construction of the Vessels, Finishing Techniques, Drying and Firing, Technological Analysis.

Recommended Readings:

Agrawal, D.P. *The Archaeology of India*, Curzon Press.

Ashley Montague. *Physical Anthropology and Archaeology*

Barmown victor. *Physical Anthropology and Archaeology*, The Dorse Press Home wood, Illinois

Banerjee, F. *Iron Age in India*, MunshiramManoharlal

Beals R.L. & H. Hoizer& A.R. Beals. *An Introduction to Anthropology*.

Bordes, F. *The Old Stone Age*.

Bordes, F. *The Tools of the Old and New Stone Age*.

Bordes, F. *Old Stone Age*, Weidenfeld and Nicolson

Borthwell, D & Higgs, E. (Ed), *science in archaeology*, Thames & Hudson
Burkitt, M.C. *The Old Stone Age*.
Butzer, K.W. *Environment and Archaeology*
Clark, D.L. *Analytical Archaeology*, Methun& Co. Ltd
Coles, J.M. & Higgs, E.S. *The Archaeology of Early Man*, Faber & Faber
Fagan, Brian M. *People of the Earth: An Introduction to World Prehistory*.
James, J. Hester, *Introduction to archaeology*, Holt, Rinehart and Winston
Michel, J. W. *Dating Methods in archaeology*, seminar press
Oakley K.P. *Man the Tool Maker*.

PAPER: ANT 704C
LANGUAGE, CULTURE AND SOCIETY
CREDITS: 4 (3+1+0)

COURSE OUTLINE-- It aims at

- introducing basic elements of linguistic anthropology, more specifically sociolinguistics within the wider ambit of human communication studies. After completion of the course, the students will comprehend:
- The nature of human communication and language acquisition
- The difference between human and non-human communication
- The nature of language, dialects and their relationships with stratification, gender, ethnicity and other areas of society and culture

The learning outcomes of this paper are:

- The students learn about linguistic anthropology.
- They get basic knowledge about nature and structure of different aspects of human communication.
- Students learn the relationship between language and society.

Unit I: Linguistic Anthropology: Nature and Structure of language; Language acquisition: historical overview of different hypothesis with special reference to Chomsky.

Unit II: Human Communication: Basic features, human speech and animal communication; Proxemics and kinesics Metacommunication; Ethnography of Communication; Cyber Communication: An Introduction.

Unit III: Language Thought and Culture: Sapir-Whorf Hypothesis; Analysis of kinship and colour terminologies; Contribution of Levi-Strauss.

Unit IV: Language and Society: Sociolinguistics: multilingualism and diglossia; Lingua franca; Pidgin and Creole

Unit V: Language and Inequality: Language and Social stratification; Linguistic prejudices and stereotypes; power and solidarity relations in language; Language and ethnicity; Language and Gender.

Suggested Readings:

Duranti, Alessandro.1997. *Linguistic Anthropology*. Cambridge: University Press.

Ember & Ember. *An Introduction to Anthropology*

Foley, W.A :*Anthropological linguistics An Introduction*

Hudson, R.A. 1980. *Sociolinguistics*. UK: Cambridge University Press.

PayatosB :*Literary Anthropology*.

TrudgillPeter :*Sociolinguistics*.

Thomas L: *Language society and Power*.

PAPER: ANT: 705C

BIOLOGICAL ANTHROPOLOGY (PRACTICAL/ LABORATORY)

Credit: 4 (0+0+4)

COURSE OUTLINE---- This is a practical paper dealing with

- The measurements of the bones of the human skeleton other than face and skull.
- The paper will also acquaint students about the different techniques to measure blood pressure, pulse rate, estimate haemoglobin percentage in blood, test sensitivity to PTC and to take finger and palm prints.

Learning Outcomes

The learning outcomes of this paper are:

- Students will learn about measurements of various human bones.
- They will learn about how to measure cardiovascular functions.

- They will learn about estimation of haemoglobin, identification of colour blindness and PTC tasters.
- They will learn about recording, determining and comparing fingerprints.
- They will learn about calculation of various body types/ somatotypes.

Unit I: Osteometry:

Femur: Maximum Length, Physiological length, Maximum trochanter length, Middle shaft diameter, Transverse diameter of head, Vertical diameter of head, Collodiphysial angle, Torsion Angle, Robusticity index of head;

Humerus: Maximum length, Breadth of proximal epiphysis, Breadth of distal epiphysis, Least girth of shaft, Condylo-diphysial angle, Torsion angle; Caliber index

Scapula: Anatomical breadth (maximum length), Anatomical length (maximum breadth), Length of spine, Length of glenoid fossa, Breadth of glenoid fossa, Supra-Spinous angle; Infra-Spinous angle. Scapular index;

Clavicle: Maximum length, Middle shaft diameter, Angle of curvatures: meadial and lateral angle, Caliber index;

Unit II: Measurement of systolic and diastolic blood pressure; Pulse rate at radial arteries; Cardio-vascular endurance test: Harvard step test;

Unit III: Estimation of Haemoglobin (Sahli's haemoglobinometer); Taste sensitivity to Phenyle-thio-carbamide (PTC); Red-Green Colour blindness test by Ishihara methods.

Unit IV: Dermatoglyphics: Finger and palm prints: Ridge count: Total ridge count, Absolute ridge count, Tracing of main lines, Main line formula, Main line index, atd angle, Furuhashi's index, Denkmeijer's index, pattern intensity index.

Unit V: Skin fold Measurements: Biceps, Triceps, Calf and Forearm Skinfold.

Unit VI: Somatotyping: Calculation of Endomorphy, Mesomorphy and Ectomorphy component ratings. (Heath and Carter).

Recommended Readings:

- Comas, Juan, *Manual of Physical Anthropology*, Charles C. Thomas, Illinois, 1960.
- Das, B.M. and Deka, R., *Physical Anthropology Practical*, Kitab Mahal, Allahabad, 1996.
- Hooton, A.E., *Up from the Ape*, Macmilan, Delhi, 1965.
- Montagu, M.F.A., *An Introduction to Physical Anthropology*, Charles C. Thomas, Illinois, 1961.
- Mukherji, D., Mukherjee, D, Bharati, P., *Laboratory Manual for Biological Anthropology*, Asian Books Pvt. Ltd., New Delhi, 2009.
- Sarkar, R M. *Fundamentals of Physical Anthropology*. Vidyodata Library Pvt. Ltd. Calcutta, 1997.
- Sen, Tulika, *Guide to Anthropometry*. The World Press. Kolkata, 1994.
- Singh IP and Bhasin MK., *Anthropometry*. KamalaRaj Enterprises. Delhi, 1989.
- Singh, IP and Bhasin MK. *A Manual of Biological Anthropology*. Kamala Raj Enterprises. Delhi, 2004.
- Singh, S.P., Mehta, P., *Human Body Measurements: Concepts and Applications*, PHI Learning Pvt. Ltd., New Delhi, 2009.
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SEMESTER- II
PAPER: ANT 801C
ANTHROPOLOGICAL THEORIES
CREDITS: 4 (3+1+0)

COURSE OUTLINE---- The course outlines

- the major theoretical trends of Anthropology from colonial times to the present.

The learning outcomes of this paper are:

- The students will learn about early anthropological theories.
- Students learn in detail about different versions of functionalism, structuralism and materialistic perspective of culture.
- Students also learn the relationship between culture and personality and the various post modernism and post structuralism overview.

Unit I: Emergence of Anthropological Theories: Impact of Colonialism.

Unit II: Evolutionism (Unilinear, Multilinear and Neo-evolutionism) and Diffusionism (British, German and American);

Unit III: Historical Particularism: Theoretical implications, contributions of Boas and limitations of historical particularism.

Unit IV: Materialist Perspective on culture: Cultural materialism, contribution of Marvin Harris and Leslie White, critique of cultural materialism.

Historical materialism: Historical materialist approach of Karl Marx, anthropological significance of Marxian ideas, critique of historical materialism.

Unit V: Functionalism: Functionalism of Malinowski, Merton and Parsons. Structural-

functionalism of Radcliffe-Brown. Contributions and limitations.

Unit VI: Structuralism: Contributions of Levi-Strauss and Edmund Leach, Critique of structuralism.

Unit VII: Other Classical Theoretical Approaches: Culture-Personality (Margaret Mead), Pattern-Configuration (Ruth Benedict), Culture Interpretations (Clifford Geertz)

Unit VIII: Post-structuralism and post-modernism (M.Foucault, P.Bourdieu)-an overview.

Recommended Readings:

Bidney, David. 1953. *Theoretical Anthropology*. New York: Colombia University Press

Collins, Randall.1997. *Theoretical Sociology*. New Delhi: Rawat Publications

Evans-Pritchard,E.E.1981. *A History of Anthropological Thought*. London: Faber &Faber

Harris, Marvin 1968. *Rise of Anthropological Theory*. London: Routledge&Kegan Paul

Honnigman,J. 1997. *Handbook of Social and Cultural Anthropology*. New Delhi: Rawat Publications.

Ingold, Tim 1996.*Key Debates in Anthropology*. London: Routledge

Layton,Robert.1997. *Introduction to Theory in Anthropology*. Cambridge University Press.

McGee, R.J and R.L. Warms. 1996. *Anthropological Theory*. London: Mayfield Pub.

PAPER: ANT 802C

RESEARCH METHODOLOGY AND FIELDWORK IN ANTHROPOLOGY

CREDITS: 5 (2+0+3)

COURSE OUTLINE---- This course aims at

- developing a scientific approach to social research as well as exposing the students to the field situation preferably in tribal and rural settings for training in the ethnographic method of field research which is central to anthropology as an academic discipline inquiry.

Note 1: The practical component of this Course will be conducted outside classroom, but data analysis and report writing will be completed in the classroom in Lecture and Tutorial classes.

The learning outcomes of this paper are:

- The students learn about the basic concepts and types of social research and research design.
- They are acquainted with different ethnographic techniques.
- They also learn about the basic statistics and sampling technique.
- Students also get the practical experience of conducting field work.

Unit I: Social Research: Concept and types: quantitative and qualitative approaches and uses in social science research. Research Design: Definition and type of research design; steps in research design: review of literature; formulation of research problem; formulation of hypothesis

Unit II: Ethnography: Basic Concept. Techniques of rapport establishment; Methods and Techniques of Data Collection: Observation, Interview, Genealogy, Case Study, Focused Group Discussion (FGD), Schedule and Questionnaire, Participatory Rural Appraisal (PRA). Report writing.

Unit III: Sample and Sampling Techniques; Measures of Central tendency; Dispersion; Test of Significance: Chi-Square test, t-Test; Correlation and regression equation.

Unit IV: Fieldwork (Practical)

The fieldwork is to be arranged and conducted by the Department in a suitable rural setting. The duration of the fieldwork is maximum 15 days. The fieldwork should be carried out by the entire batch of students as a team-work. However, each student is to be given a separate topic for writing a report. After coming back from the field, the students should undertake the analysis and report-writing under the guidance of the teachers assigned.

1. Introduction to Analysis of data collected in Ethnographic fieldwork
2. Compilation and organizing the data; field notes, transcript informal interviews, diary and logbook.
3. Analysis of the data collected through
 - i) Informal and key informant interviews
 - ii) Observation notes
 - iii) Genealogy
 - iv) Census
 - v) Focused Group interviews
 - vi) Case narratives and case studies.

Suggested Readings:

Dawson, Catherine :*Practical Research Methods*

Basu. ,M.N *Field Methods in Anthropology and other Social Sciences*

Creswell, John.W.2009.*Research Design*. New Delhi: Sage Publications.

Danda, Ajit. *Research Methodology in Anthropology*, Inter- India, New Delhi.

Fernandes&Tondon, *Participatory Research*.

Goode and Hatt :*Methods in Social Research*

Gupta, S.P :*Statistical Methods*

H. Russel. Bernard, *Handbook of Methods in Cultural Anthropology*, Altamira Press.
Kassam& Mustafa: *Participatory Research*
Kothari, C.R :*Research Methodology*
Kluckhohn, C :*Use of Personal Documents in Anthropology*
Madrigal, Lorena. *Statistics for Anthropology*.
Mukherjee, Neela. *Participatory Rural Appraisal and Questionnaire Survey*.
Pelto P.J. &Pelto, G.H *Anthropological Research: The Statement of Inquiry*
Spindler :*Case studies in Anthropology*
Royal Anthropological Institute of Great Britain Notes and Queries in Anthropology.
Young, P.V *Scientific Social Survey and Research*.
Russel, Bernard H *Research Methods in Anthropology*.

PAPER: ANT 803C
HUMAN GENETICS
CREDITS: 4 (3+1+0)

COURSE OUTLINE---- This course intends to throw light on

- Human genetics, tracing its history, Mendelian inheritance in man, sex determination, Mendelian populations, Chromosomal aberrations, and gene and genetic code.

Learning Outcomes

The learning outcomes of this paper are:

- The students will learn about DNA, gene, genetic code and proteins. They will also learn replication of DNA and protein synthesis.
- They will learn chromosome types, karyotyping and nomenclature and different chromosomal aberration.

- They will learn about inheritance and the factors influencing inheritance.
- They will also learn Hardy-Weinberg law & equilibrium, and also the causes and deviation from HW equilibrium.
- They will also learn about the role of mutation in population variation

Unit I: Chromosomal morphology, karyotyping, nomenclature, autoradiography, banding techniques; Linkage and crossing over, Watson and Crick model of DNA; Gene and genetic code; DNA Replication and protein synthesis.

Unit II: Mendelian inheritance in man: single factor inheritance, multiple allele, sex linked inheritance, polygenic inheritance.

Unit III: Gametogenesis, sex chromosome, Determination of sex, ambiguous sex, Barr bodies, Lyon hypothesis.

Unit IV: Lethal and Sub lethal genes; Penetrance and expressivity.

Unit V: Mendelian populations; concept of genetic equilibrium; Hardy-Weinberg law, application of Hardy-Weinberg law in human population genetics. Causes of deviation from Hardy-Weinberg equilibrium.

Unit VI: Mutation: Types, causes and consequences.

Unit VII: Chromosome Aberration: Types and Causes, Cri-du-chat Syndrome, Philadelphia chromosome, Down's syndrome, Patau's syndrome, Edward's syndrome, Turner's syndrome, Klinefelter's syndrome.

Recommended Readings:

Boyd, W.C. *Genetics and the Races of Man*, Little Brown & Co. Boston, 1950.

Carlson, E.A., *Human Genetics*, Tata McGraw – Hill Pub. Co. Ltd, New Delhi, 1985.

Das, B M. *Outline of Physical Anthropology (26th Edition)*. Kitab Mahal, Allahabad,

- 2008.
- Gardner, Simmons, M. J., Snustad, D. P., *Principals of Genetics (8th Edition)*. John Wiley & Sons Pvt. Ltd., Singapore, 2006.
- Harrison GA, Tanner JM, Pilbeam DR and Baker PT, *Human Biology: An Introduction to Human Evolution, Variation and Growth and Adaptability 3rd edition*. Oxford University Press. Oxford, 1988.
- Hooton, A.E., *Up from the Ape*, Macmilan, Delhi, 1965.
- Lasker, G.W., *Physical Anthropology*, Holt, Rinehart &Wiston, New York, 1976.
- McKusick, V.A., Antonarakis, S.E., *Mendelian Inheritance in Man: A Catalog of Human Genes and Genetic Disorders*, Volume 2, Johns Hopkins University Press, Baltimore, Maryland, United States, 1998.
- Mckusick, V.A., *Human Genetics*, Prentice Hall, New Delhi, 1969.
- McKusick, V.A., *Mendelian Inheritance in Man: Catalogs of Autosomal Dominant, Autosomal Recessive and X Linked Phenotypes*, Baltimore, Maryland, United States, 1966.
- Montagu, M.F.A., *An Introduction to Physical Anthropology*, Charles C. Thomas, Illinois, 1961.
- Mukherji, D., Mukherjee, D, Bharati, P., *Laboratory Manual for Biological Anthropology*, Asian Books Pvt. Ltd., New Delhi, 2009.
- Race, R.R. and Sanger, R., *Blood groups in Man*, Blackwell Scientific Publications, Oxford, 1975.
- Rothwell, N.V. *Human Genetics*, Prentice Hall of India, New Delhi, 1978.
- Sarkar, R M. *Fundamentals of Physical Anthropology*. Vidyodata Library Pvt. Ltd. Calcutta, 1997.
- Stern, Curt, *Principles of Human Genetics*, Eurasia Publishing House Pvt. Ltd., New Delhi, 1963
- Stoneking, Mark, *An Introduction to Molecular Anthropology*, Wiley-Blackwell, New Jersey, 2017.
- Winchester, A.M., *Genetics*, Oxford & IBN Publishing Co., New Delhi, 1967.

PAPER: ANT 804C
PREHISTORIC CULTURAL PATTERN IN THE OLD WORLD
CREDITS: 4 (3+1+0)

COURSE OUTLINE---- The aim of the paper is to provide

- An insight into the different palaeolithic and post- palaeolithic cultures through which humanity has passed through in different parts of the world.

The learning outcomes of this paper are:

- Students will learn about the palaeolithic culture of Europe, Africa, South-East Asia and the discovery of associated fossil hominids.
- They will learn about middle and upper Palaeolithic cultures of Europe and also about upper Palaeolithic art and discovery of associated fossil hominids.
- They will learn about the Mesolithic cultures of Europe and South –East Asia.
- They will learn about implication of domestication of plants and animal.

Unit I: Lower Palaeolithic Cultures

- A) Oldowan in Africa,
- B) Abbevillian, Acheulean, Clactonian development in Europe; Important sites
- C) Palaeolithic Cultures in South East Asia: Non-Biface Tradition – Patjitanian, Anayathian, Tampanian and Zoukotian.
- D) Associated fossils – *Homo habilis* and *Homo erectus*.

Unit II: Middle Palaeolithic Cultures

Mousterian and Levalloisean cultural development in Europe
Associated fossil finds – Neanderthal Man.

Unit III: Upper Palaeolithic Cultures in Europe

Upper Palaeolithic Rock Art and painting

Appearance of *Homo Sapiens Sapiens*

Unit IV: Mesolithic Cultures –

- A) Salient Features of different Mesolithic Cultures in Europe,
- B) The Ecology of Natufian in Palestine
- C) Mesolithic in South East Asia – Hoabinhian, Spirit Cave and Non Nok Tha.

Unit V: Evolution of Early Farming – Origin and Distribution

- A) Neolithic Revolution.
- B) Origin of Agriculture in West Asia
- C) Ecology of a Village Farming Community: Jarmo
- D) Early Agriculture in Southeast and East Asia (Yengse Valley).

Unit VI: Urban Origin in Near Eastern Flood Plains –It's Significance.

Recommended Readings:

- Beals R.L. & H. Hoizer & A.R. Beals. *An Introduction to Anthropology*.
- Bhattacharyya, D. K. Prehistoric Archaeology.
- Bhattacharyya, D. K. *Indian Prehistory*.
- Bhattacharyya, D.K. *Emergence of Cultures in Europe*.
- Bordes, F. *The Old Stone Age*.
- Bordes, F. *The Tools of the Old and New Stone Age*.
- Burkitt, M.C. *The Old Stone Age*.
- Chester, Chard. *Man in prehistory*, McGraw Hill.
- Clark, J.G.D. *Mesolithic Settlement in Northern Europe*. Cambridge University Press.
- Cole, Sonia. *The Neolithic Revolution*. British Museum.
- Fagan, Brian M. *People of the Earth: An Introduction to World Prehistory*.
- Gordon, Childe V. *Man Makes Himself*. Coronet Books.
- Miller, Barbara. *Cultural Anthropology*. Pearson.
- Oakley K.P. *Man the Tool Maker*.
- Reddy V. Rami. *Elements of Prehistory*.
- Scuipn, R & C. R. DeCorse. *Anthropology: A Global Perspective*.
- Sankalia, S.D. *Prehistory and Protohistory of India and Pakistan*.

Lab Paper: ANT 805C
LITHIC AND CERAMIC TECHNOLOGY
Credits: 4 (0+0+4)

COURSE OUTLINE---- The aim of this paper is to

- Provide the students practical knowledge on lithic and Ceramic Technology

The learning outcomes of this paper are:

- Students will learn to draw and interpret pre-historic tools on the basis of their manufacturing technique.
- They will learn the method of re-construction of pottery.

Unit I: Practical on Lithic Technology

Prehistoric Technology: Identification of Different Lithic Techniques. Students are to be taught about Proper Drawing of Tools Representing Different Lithic Techniques.

- A. They have to Draw atleast 10 Tools.
- B. They have to Maintain a Practical Note Book.

Unit II: Laboratory work on Pottery Reconstruction

- A. Identification of Hand Made and Wheel Made Pottery.
- B. Description of Prehistoric and Historic Pottery - Neolithic, Chalcolithic, Harappan and Megalithic, Historical Pottery, (Ambari Ware)
- C. Method of Reconstruction of Pottery from Historic or Prehistoric Context.
- D. Students should have Knowledge of Proper Drawing and Description of Pottery.
- E. They have to Identify the Different Ceramic Terms – Rim, Neck, Shoulder, Base,
- F. They have to Maintain a Laboratory Note Book

Unit III: Project Work on Archaeological Classification

Note: As per guidance of the teacher, Students will classify a no of lithic tools in the laboratory taking different criteria and divide the tools into various types – morphological or functional category.

Recommended Readings:

Bordes, F. The Old Stone Age.

Bordes, F. The Tools of the Old and New Stone Age.

Oakley K.P. Man the Tool Maker.

SEMESTER-III

PAPER: ANT 901C

ANTHROPOLOGY AND GENDER

CREDITS: 4 (3+1+0)

COURSE OUTLINE---- The primary goal of this course is to

- familiarize students with key issues, questions and debates in the anthropology of gender.
- It also offers an exposure on the implication of gender in society, major issues relating to women and discloses important indicators of women's development.

The learning outcomes of this paper are:

- Students get familiar with the basic concepts of gender and various related issues.
- They learn about various versions of feminism and women movement.
- They also get to know about gender and economy in the globalized world.

Unit I: Basic Concepts in Gender: Sex and Gender, Gender and Identity, Gender and Socialization, Gender Roles, Gender Equity, Gender Discrimination.

Unit II: Women's Movements in the West and in India

Unit III: Gender Issues: Gender and Rights of Reproduction, Gender and Violence, Gender and Environment, Gender and Human Rights, Gender and Politics, Gender and Development.

Unit IV: Portrayal of Gender in Mass Media: Television, Films, Advertisements, Internet, Newspaper and magazine.

Unit V: Approaches to Feminism: Liberal Feminism, Marxist Feminism, Radical Feminism, Ecofeminism, Third World Feminism.

Unit VI: Gender and Anthropology in a Global World: Gender and Identity in a Globalized world; Gender in the Globalized economy.

Suggested Readings:

Aihwa Ong. 1987. Colonialism and Modernity: Feminist Representations of Women in Non-Western Societies. In Kum-Kum Bhavnani Desai, Neera and M. Krishnaraj (ed) *Feminism and 'race' Women and society in India*. Delhi

Abu-Lughod, L. (1986). *Veiled Sentiments: Honor and Poetry in a Bedouin Society*. Berkeley, CA: University of California Press.

Dube, Leela et. al. (eds.) 1986. *Visibility and Power. Essays on Women in Society and Development*. New Delhi: OUP.

Gandhi, N. and N. Shah. 1992. *The issues at Stake: Theory and Practice in the contemporary women's movement in India*. New Delhi : Kali for women,

LeelaDube: On the construction of gender: Hindu girls in patrilineal India. *Economic and Political Weekly*, 23(18).

Michelle Rosaldo "Woman, Culture and Society: A Theoretical Overview" in *Woman, culture, and society*. Edited by Michelle Zimbalist Rosaldo and Louise Lamphere.

Oakley, Ann. 1972. *Sex, Gender and Society*. New York: Harper and Row.

- Sherry Ortner “Is Female to Male as Nature is to Culture?” in *Woman, culture, and society*. Edited by Michelle Zimbalist Rosaldo and Louise Lamphere.
- Forbes, G. 1998. *Women in Modern India*. New Delhi, Cambridge University Press.
- Gangoli, G. 2007. *Indian feminisms: Law, patriarchy and violence in India*. Ashgate.
- Moore, Henrietta L. 1988. *Feminism and Anthropology*. Cambridge: Polity Press.
- Connell, R.W. 2002. *Gender*. Cambridge: Polity Press.
- Connell, R.W. 1987. *Gender and Power*. UK: Polity Press.
- Mascia-Lees, Frances E. And Nancy Johnson Black. 2017. *Gender and Anthropology* (2nd Edition). USA: Waveland Press.
- Priyam, Manisha, Krishna Menon and Madhulika Banerjee. 2009. *Human Rights, Gender and the Environment*. Noida: Pearson India Education Services.
- Verma, R.C. *Tribes Through the Ages*.
- Mahanta, Upasana. 2015. *An Introduction to Women’s Studies*. Guwahati: DVS Publishers
- Sen, Sujata. 2012. *Gender Studies*. New Delhi: Pearson
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PAPER: ANT 902C
HUMAN GROWTH AND DEVELOPMENT
CREDITS: 4 (3+1+0)

COURSE OUTLINE---- The main focus of this paper is to

- give a general idea about growth and development, sexual dimorphism, Body composition, ageing and senescence.

Learning Outcomes

The learning outcomes of this paper are:

- The students will learn about the concepts and indicators of human growth and development.

- They will learn about various stages of human growth and development.
- They will also learn about various bio-cultural factors that influence growth.
- They will learn sex dimorphism in growth, secular trend in growth and also population variation in growth.
- They will also learn human physique and body composition.
- They will learn ageing and senescence, factors affecting ageing and various theories of ageing.

Unit I: Growth and Development: Concept. Stages of Human growth. Human growth curves; Methods of studying human growth. Recent trends in growth studies in India with special reference to Northeast India.

Unit II: Factors affecting growth and development: Heredity, environment, hormone, nutrition, socioeconomic condition. Growth as an indicator of nutritional status.

Unit III: Sex dimorphism in Growth. Secular trends in growth; Intra and inter population variation in growth.

Unit IV: Human Physique and body composition: Kretschmer, Sheldon, Heath and Carter's Classification of body Composition and Somatotypes.

Unit V: Ageing and Senescence: Factors affecting ageing: Intrinsic and Extrinsic; Physical Manifestation of old age. Theories: Wear and Tear, Hormone Imbalance.

Recommended Readings:

Bogin, B., *Patterns of Human Growth*, Cambridge Univ. Press, 1988.

Boyle Mike, Indge Bill, Senior Kathryn, *Human Biology*. Collins Educational. London, 2001.

Harrison GA, Tanner JM, Pilbeam DR and Baker PT, *Human Biology: An Introduction to Human Evolution, Variation and Growth and Adaptability 3rd edition*. Oxford University Press. Oxford, 1988.

Hooton, A.E., *Up from the Ape*, Macmilan, Delhi, 1965.

Roche, A.F., *Growth, Malnutrition and Body Composition*, Cambridge University Press, Cambridge, 1992.

Tanner, *Foetus into Man-Physical growth from conception to Maturity*, Harvard Univ. Press, 1978.

Timiras, P.S., *Development, Physiology and Ageing*, Macmillan Pub. Co., New York, 1972.

Ulijaszek, S.L. Johnson, F.E. and Preece, M.A., *The Cambridge Encyclopedia of Human Growth and Development*, Cambridge University Press, Cambridge, 1998.

Weiss, M.L., A.E. Mann, *Human Biology: Anthropological Perspective*, Little Brown X Company, Toronto, 1978.

PAPER: ANT 903C
PREHISTORY AND PROTOHISTORY OF SOUTH ASIA
CREDITS: 4 (3+1+0)

COURSE OUTLINE---- the aim of this paper is to

- give the students a general idea of Prehistoric cultures of South Asia with special reference to Palaeolithic, Mesolithic, Neolithic, Chalcolithic and Megalithic cultures of India

The learning outcomes of this paper are:

- The students will learn about the Palaeolithic culture of India.
- They will learn about Mesolithic culture and rock art of India.
- They will learn about Neolithic and chalcolithic cultures of India.
- They will learn about Harappan civilization and Megalithic cultures of South India.
- They will learn about the iron age of North India.

Unit I: Palaeolithic

- A. Soanian and Acheulean Development in India
- B. Middle Palaeolithic in India
- C. Upper palaeolithic in India

Unit II: Mesolithic

- A. Mesolithic in India – Distribution, Expansion, Economy, Regional Variation, Chronology.
- B. Mesolithic Art in India

C. Rock Art

Unit III: Neolithic- Early Food Producing Culture in South Asia

- A. Neolithic in Afghanistan and Baluchistan
- B. Neolithic in Kashmir Valley
- C. Neolithic in Vindhya
- D. South Indian Neolithic
- E. Eastern and North Eastern Neolithic

Unit IV: Chalcolithic

- A. Regional Chalcolithic tradition in Central India, Rajasthan and Gangetic Doab – Ahar, Malwa, Kayatha, Ganeshwar and Jodhpura,
- B. OCP and Copper Hoard Culture.

Unit V: Harappan Civilization:

Geographical Distribution, Extent and Settlement Pattern, Important Excavation Sites, Town Planning and Architecture, Trade, Economy, Technology, Art and Seals, Decline, Socio-Political Life; Relationship with other Civilization (Mesopotamia and Ancient Egyptian Civilization).

Unit VI: South Indian Megalith – Characteristics, distribution and typology

Unit VII: Iron Age in North India – Painted Grey Ware and Northern Black Polished ware (Hastinapur, Attranjikhera and Kausambi)

Recommended Books:

Allchin, B and Allchin, F.R. *The Rise of Civilization of India and Pakistan*, Cambridge University Press.

Aljan, Jetal (Ed.) *Sunda and Sahul*.

Asian Perspective (Journal) Vol. 12, 1972.

American Anthropologist, Vol. 62. No. 5. 1960.

Bellwood, P.S. *Man's Conquest of the Pacific*.

Bellwood, P.S. *Prehistory of Indo-Malaysian Archipelago*.

Chang, K.C. *The Archaeology of Ancient China*.

Clarks, Graham. *World Prehistory: in New Perspective*.

Heakeren, H.R. Van. *The Stone Age of Indonesia*.

Mulvany, D.J. *Prehistory of Australia*.

Singh, Upender. 2008. *A history of Ancient and Early Medieval India from Stone Age to the 12th Century*. Person India.

World Archaeology, Vol. 2, 1970.

SEMESTER- III SPECIAL PAPERS

PAPER: ANT 910C/904 (SP-1)

ANTHROPOLOGY OF DEVELOPMENT

CREDITS: 5 (3+2+0)

COURSE OUTLINE---- This paper aims to

- create awareness about the concept of development from the anthropological perspective.
- It attempts to discuss the relation of anthropology with development and also aims to throw light on the perspective role anthropologists could play in development planning. Moreover, it envisages giving a broad view of the policies and development of the rural poor, Scheduled Castes and Scheduled Tribes.

The learning outcomes of this paper are:

- Students will learn the basic concepts, types and theories of development.
- They will also learn about sustainable developments and provisions for SC & ST.
- They will learn about community developments induced displacement and re-habilitation in India.

Unit I: Introduction: Concept of Development-anthropological perspective; role of anthropology in development studies. Development from Below;

Unit II: Theories of Development: Early Capitalism, Historical Materialism; Late Capitalism: Modernization and Dependency Theories. Globalization

Unit III: Sustainable Development: Concept and philosophy, salient features, components of Sustainable Development and Strategies for Sustainable Development; Social Development and Sustainable Development, contemporary Indian scenario.

Unit IV: Development programmes and the Scheduled Castes, Scheduled Tribes in India; Constitutional Provisions and safeguards for SCs and STs; Problems and prospects of tribal development

Unit V: Cultural factors in Rural community Development

Unit V: Development, Displacement and Rehabilitation in India: Voluntary and involuntary Displacement. Development induced Displacement & Deprivation. Displaced & Project Affected persons, state of Rehabilitation in India.

Suggested Readings:

Cochrane, Glyn. 1971. *Development Anthropology*.

Chansarkar, B.A. *Models for Planning in India*

Dalton, George (ed.) *Economic Development and Social Change*

Harrison, David. 1989. *The Sociology of Modernization and Development*. New Delhi: Heritage Publishers.

Larrain, Jorge. 1989. *Theories of Development*. Polity Press

Kumar, Hajira. 1997. *Social Work, Social Development and Sustainable Development*. Regency Publications.

Mathur, Hari Mohan (ed). 1977. *Anthropology in the Development Process*. New Delhi

Mair, Lucy. 1984. *Anthropology and Development*. London: Macmillan Press. Vikas Publishing House

Vidyarthi, L.P. *Applied Anthropology in India*.

PAPER: ANT 930C/904 SP-II
ANTHROPOLOGICAL DEMOGRAPHY
CREDITS: 5 (3+2+0)

COURSE OUTLINE---- The course aims to

- give a general idea on population composition, fertility and mortality and factors affecting the same and population census.

Learning Outcomes

The learning outcomes of this paper are:

- The students will learn about demographic anthropology and its importance in anthropology.
- They will learn about major theories of population.
- They will learn about the various sources of data in population studies.
- They will learn fertility and mortality and various factors that leads to changes in fertility and mortality.
- They will also learn migration, types of migration and causes and consequences of migration.

- Students will also learn about different population policies in India.

Unit I: Demography: Demography and Population study; sources of population data: population census, registration of vital statistics; sample survey, international publications; census in India.

Unit II: Demographic transition: stages of demographic transition; demographic transition in India. Demographic theories: Malthus theory, Optimum population theory, Social capillary theory.

Unit III: Population composition: population size, population structure, population characteristics; factors affecting age and sex structure.

Unit IV: Fertility and fecundity: factors associated with change in fertility—physiological factors and sociocultural factors; differential fertility. Mortality and morbidity; basic measures of fertility and mortality; infant mortality and factors affecting it; differential mortality.

Unit V: Migration: Types of migration; rural-urban migration, seasonal migration and transhumance; causes and consequences of migration.

Unit VI: Population explosion in India; National Population policy.

Recommended Readings:

Bhende, A.A., Kanitkar, T., *Principles of Population Studies*, Himalaya Publishing House, Bombay, 2011.

Bogue, D.J., *Principles of Demography*, Wiley, New York, 1968.

Cox, P.R., *Demography* 5th Edition, Universal Book Stall, New Delhi, 1989.

Hansre, P.M., Duncean, O.D., *The Study of Population*, University Press, Chicago, 1959.

Harrison, G.A., *Population Structures and Human Variation*, Cambridge Univ. Press, 1977.

Peterson, W., *Population*, Collier Macmillan, London, 1972.

Shapire, H.L., *Migration and Environment*, Oxford Univ. Press, New York, 1975.

PAPER: ANT 950C/904 SP-III
ETHNO-ARCHAEOLOGY AND PREHISTORIC ECONOMIC PATTERN
CREDITS: 5 (4+1+0)

COURSE OUTLINE----this course is designed to

- give the knowledge of ethno Archaeology and its relevance in research of the past cultures and Megalithic Traditions in India with special references to N.E India.

The learning outcomes of this paper are:

- The students will learn about Ethno Archology and its relevance in research of past material culture and some examples of Ethno Archeological studies of living hunter and gatherers.
- They will learn about Megalithic cultures of India with special reference to North east India.
- They will learn about subsistence strategy of North East India.
- They will learn about re-construction of pre-historic society and economy,

patterns of pre-historic trade and demography in pre-historic times.

- They will learn about cultural and biological evolution of man and their impact on environment.

Unit I: Ethno-archaeology – Definition, Scope and Methods; Relevance of Ethno-Archaeological Research for Reconstruction of past Material Culture e.g. Settlement Pattern, Technology, Ceramics, Food Processing etc.

Unit II: Important Examples of Ethno-Archaeological Studies of Living Hunter – Gatherer (e.g. – Eskimo, Andaman Islanders, Jarawa)

Unit III: Subsistence Strategy in the Context of North East India with Special Reference to Assam, Arunachal Pradesh, Meghalaya and Nagaland: Shifting Cultivation, Terrace Cultivation, Fishing and Hunting and others.

Unit IV: Megalithic Traditions of India with special reference to Northeast India.

Unit V: Reconstruction of Prehistoric Society and Economy - Prehistoric Subsistence Pattern, Seasonal Subsistence Cycle:

- A. Evidences of Food – Botanical, Zoological and Archaeological Evidences.
- B. Food Storage and Preservation
- C. Importance of Butchering Site and Kitchen Midden

Unit VI: Patterns of Prehistoric Trade: Trade Goods and Standard of Exchange.

Unit VII: Demography in Prehistoric Times; Determination of Prehistoric Population Size, Factors affecting Population Size

Unit VIII: Interdependence of Biological and Cultural Evolution, Impact of Man on Environment

Recommended Books:

Ajay, Pratap. 2000. *The Hoe and the Axe: Ethnohistory of Shifting Cultivation in Eastern India*, New Delhi, Oxford University Press.

Allchin, B. (Ed.) 1994. *Living tradition: South Asian Ethnoarchaeology*, New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.

Barkataki, S. 1969. *Tribes of Assam*. New Delhi: National Book trust.

- Bettinger, R.L. 1987, *Archaeological Approaches to Hunter Gatherers, Annual Review of Anthropology* 16:121-124.
- Binford, L.R. 1988, *In Pursuit of the Past*, New York: Thames and Hudson.
- Binford, L. R. *An Archaeological Perspective*.
- Child, V. Gordon. *Man makes Himself*.
- Clark, J.G.D. *Archaeology and Society*.
- Cooper, Z. 2002. *Archaeology and History: Early Settlement in the Andaman Islands*. New Delhi: Oxford University Press.
- David, N. and C. Karner. 2001. *Ethnoarchaeology in Action*. Cambridge University Press.
- Deka, B.C. et.al. 2012. *Resilient shifting cultivators: Challenges and opportunities*. ICAR Publication.
- Devi, Jonali. *Shifting Cultivation in North East India*. Subba, T. B. (eds.) *North East India: A Handbook of Anthropology*. Orient Blackswan
- Dhavalikar, M.K. 1983. *Ethnoarchaeology in India. Bulletin of the Deccan College Post-Graduate and Research Institute* 42: 49-68.
- Fuchs, S. 1973. *The Aboriginal Tribes of India*. Delhi: Macmillan Press.
- Gould, R.A. 1980. *Living Archaeology*. Cambridge: Cambridge University Press.
- Griffin, P. B. and W.G. Solheim II. 1990. *Ethnoarchaeological Research in Asia*. *Asian Perspectives* 28 (2): 145-161.
- Grigg, D.B. 1980. *The Agricultural System of the World*. Cambridge University Press, Cambridge, (Chapter on Shifting Agriculture, pp.37-75).
- Higgs, *Palaeo-Economy*.
- Hole, F. and R.F. Heizer. *An Introduction to Prehistoric Archaeology*.
- Leshnik, L.S. and G. Sontheimer (Eds.) 1975. *Pastoralists and Nomads*. Wiesbaden: Otto Harrassowitz.
- Maheshwari, J.K. 1996. *Ethnobotany in South Asia*, Scientific Publishers, Jodhpur.
- Meehan, B. and R. Jones (eds.) 1988. *Archaeology with Ethnography: An Australian Perspective*. Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra.

Mishra, V.N. 1990. The Van Vagris – ‘Lost’ Hunter of the Thar Desert, Rajasthan. *Man and Environment* XV (2):89-108.

Morris, B. 1981. *Forest Traders: A Socio Economic Study of the Hill Pandaram*. London School of Economics Monograph, Social Anthropology 55. London: Athlone Press.

Shahlin, Marshall. Stone Age Economics.

SEMESTER- III OPTIONAL PAPERS

PAPER: ANT 911E/905-OE1

VISUAL AND COMMUNICATION ANTHROPOLOGY

CREDITS: 4 (2+1+1)

COURSE OUTLINE----This paper aims to

- introduce students to the world of communication, its various channels and the relation it shares with culture. It will also discuss the meaning and scope of visual anthropology, ethnographic films in India and audio-visual documentation.
- The paper attempts to throw some light on the development of visual anthropology in India also.

The learning outcomes of this paper are:

- The student will learn about the scope of visual anthropology and its

history and development.

- They learn about different types and functions of human communication.
- They will learn about different type of films especially ethnographic films.

Unit I: Visual Anthropology: Meaning and scope, its development in India; Ethnographic films, a brief history of ethnographic films in India; Visual Anthropology and Indian fiction films.

Unit II: Communication: Definition, nature, types and functions of human communication; Anthropological view of communication;

Unit III: Ethnographic Films. Films for development.

Unit IV: Review of ethnographic films/documentaries/movies etc.

Suggested Readings:

Roger, E.M. *Communication of Innovation*.

Agrawal, B.C. Anthropological Applications in Communication Research and Evaluation of SITE in India, *Media Asia*, 8: 136-146.

Fisher, Andy.B. *Perspectives in Human Communication*

Herskovits. *Cultural Anthropology*

Hymes, Dell. *The Anthropology of Communication in Human Communication Theory*

Rai Samir. *An introduction to Visual Anthropology*.

Sahay, K.N. *Visual Anthropology in India and its Development*

PAPER: ANT 931E/905-OE-II

ANTHROPOLOGY OF HEALTH AND NUTRITION

CREDITS: 4 (2+1+1)

COURSE OUTLINE---- This paper aims to

- give an idea on the concept and various aspects of nutrition, health and disease and show the relationship between health, environment, education and occupation.

Learning Outcomes

The learning outcomes of this paper are:

- They will learn about concept of nutrition, classification of foods, nutritional problems and disorder, nutritional survey.
- They will learn assessment of nutritional status, social aspects of nutrition and infant feeding and growth.
- The students will learn about concept of health and disease, determinants and indicators of health, causes and pattern of disease and pattern of disease.
- They will also learn health and environment, occupational disease, health education and communication and community health care.

Unit I: Concept of Nutrition, classification of food. Nutritional profiles of principal food, Nutritional requirements, Nutrition problems and disorders, Nutritional and diet survey, Nutrition, Weight control and performance.

Unit II: Assessment of Nutritional status, social aspect of Nutrition. Infant feeding and growth, obesity, fatness and modernization. Evaluation of body composition.

Unit III: Concept of Health and Diseases – Concept, Determinants and indicators of health, Causes and prevention of diseases, Patterns of diseases.

Unit IV: Health and environment, Occupational Patterns and diseases, Health education and communication. Community health care. Ageing and physical Exercise.

Recommended Readings:

Benjamin Caballero, B., Allen, L., Prentice, A., *Encyclopedia of Human Nutrition*, (2nd edition), Elsevier Academic Press, Oxford, 2005.

Bogin, B., *Patterns of Human Growth*, Cambridge Univ. Press, 1988.

Boyle M, Indge B, Senior K, *Human Biology*. Collins Educational. London, 2001.

- Dunford, M., Doyle, J.A., *Nutrition for Sport and Exercise*, Peter Adams, United States, 2008.
- Eberle, S.G., *Endurance Sports Nutrition*, (2nd Edition), Human Kinetics, Canada, 2007.
- Encyclopedia of Foods: A Guide to Healthy Nutrition*, Prepared by medical and nutrition experts from Mayo Clinic, University of California Los Angeles, and Dole Food Company, Inc., Academic Press, California, 2002.
- Gibney, M.J., Lanham-New, S.A., Cassidy, A., Vorster, H.H., *Introduction to Human Nutrition*, (2nd edition), A John Wiley & Sons, Ltd., Publication, United Kingdom, 2009.
- Harrison GA, Tanner JM, Pilbeam DR and Baker PT, *Human Biology: An Introduction to Human Evolution, Variation and Growth and Adaptability 3rd edition*. Oxford University Press. Oxford, 1988.
- Hooton, A.E., *Up from the Ape*, Macmillan, Delhi, 1965.
- Mudambi, S.R., Rajagopal, M.V., *Fundamentals of Foods and Nutrition* (4th Edition), New Age International Publishers, Guwhati, 2001.
- Park, K., *Textbook of Preventive and Social Medicine*, BanarsidasBhanot Publishers, Jabalpur (India), 1991.
- Roche, A.F., *Growth, Malnutrition and Body Composition*, Cambridge University Press, Cambridge, 1992.
- Smolin, L.A., Grosvenor, M.B., *Nutrition: Science and Applications*, (2nd Edition), John Wiley & Sons, Inc., USA, 2010.
- Tanner, *Foetus into Man-Physical growth from conception to Maturity*, Harvard Univ. Press, 1978.
- Timiras, P.S., *Development, Physiology and Ageing*, Macmillan Pub. Co., New York, 1972.
- Ulijaszek, S.L. Johnson, F.E. and Preece, M.A., *The Cambridge Encyclopedia of Human Growth and Development*, Cambridge University Press, Cambridge, 1998.
- Weiss, M.L., A.E. Mann, *Human Biology: Anthropological Perspective*, Little Brown X Company, Toronto, 1978.
- Whitney, E., Rolfes, S.R., *Understanding Nutrition*, (11th Edition), Thomson Wadsworth, United States, 2008.

PAPER: ANT 951E/905-OE
CULTURAL RESOURCE MANAGEMENT (CRM)
CREDITS: 4 (3+0+1)

COURSE OUTLINE----this paper is designed to

- give general idea of Cultural Resource Management, heritage management, process of national registration of heritage sites and laws and policies for their conservation

The learning outcomes of this paper are:

- They will learn the definition, meaning of CRM.
- They will learn about CRM, heritage management, National heritage and world heritage site.
- They will learn about conservation and preservation of Cultural heritage.
- They will learn about laws and international conventions.
- They will learn about CRM and museum in details.
- They will visit a museum as per the guidance of the teacher.

Unit I: Cultural Resource Management – Definition, Meaning, Concept and Relevance; History and Origin of CRM; Meaning of Cultural Resource, Tangible and Intangible Cultural Resource and their Identification Criteria.

Unit II: CRM and Heritage Management; National Registrar of Historic Places. UNESCO world Heritage Sites.

Unit III: Conservation and Preservation of Cultural Heritage (Monuments)
Principles and Guidelines for Conservation and Preservation of Monuments, Sites and Remains with Special Reference to India; Distribution of Monuments in Different Geographical Zones and Their Conservation Problems.

Unit IV: Law and Policies – Important Legislations, Acts and Rules, International

Conventions.

Unit V: Cultural Resource and Museum: Museum - Definition, Types and Functions.

Unit VI: Acquisition and Array of Museum Items- Acquisition by Purchase, Gift, Loans, Exchange and Treasure Trove.– Culture History and Geo- Ethnic Arrangement;

Unit VII: Planning of Museum Building – Lighting of Museum, Galleries, Ventilation; Concept of Mobile Museum.

Unit VIII: Arrangements, Preservation and Treatment of Museum Specimens.

Unit IX: Visit to a Museum and submit a report as per guidance of the teacher.

Recommended Readings:

Agrwala, O.P. 1977, *Care and Preservation of Museum Objects*, New Delhi: National Research Laboratory for Conservation of Cultural Property.

BaxiSmita J. and Vinod P. Dwivedi. 1973, *Modern Museum Organization and Practice in India*, New Delhi: Abhinav Publication.

Bbhatnagar, Anupama, 1999, *Museum, Museology and New Museology*: New Delhi, Sandeep Prakashan.

Bedekar V.H. (Ed.) 1988. *New Museology and Indian Museum*: Report based on proceedings of All India Seminar held at Gauhati, Assam.

Cleere, Henry. (eds.) *Archaeological Heritage Management in the Modern World*. London Unwin-Hymen, 1989.

Fowler, Don D, *Cultural Resource Management*, “*Advance in Archaeological Methods and Theory*”, 5 (1982): 1-5.

Fowler, Don D, *Conserving Americal Archaeological Resources* in David J. Meltzer, Don D Fowler and Jeremy A. Sabloff eds.*American Archaeology Past and Future*, pp. 135-162, Washington DC Smithsonian Institution Press, 1986.

Green Ernestine, eds. *Ethics and Values in Archaeology*, New York Press, 1984.

Moore, K. eds. 1994, *Museum Management*. Leicester University Press, Leicester.

Sarkar, H. 1981, *Museum and Protection of Monuments and Antiquities in India*. Delhi: SundeepPrakashan.

Smith, G.S. and J. E. Ehrenhard, eds. *Predicting the Past*. Boca Raton, FL CRC Press, 1991.

Srivastava, Mohit. & S.P. Gupta, *Modern Museum Management*. D.K. Printworld (P) Ltd and Indraprastha Museum of Art and Archaeology, 2010.

SEMESTER- IV

PAPER: ANT 1001C

ANTHROPOLOGY OF NORTH-EAST INDIA

CREDITS: 5 (3+2+0)

COURSE OUTLINE----This course is designed to

- create awareness about the north eastern region of India, its diversities and commonalities and distinctiveness. Rich cultural traditions along with the issues and problems faced by the region are addressed.
- A brief discussion on ethnicity is also introduced with the view to acquaint the students with theoretical background for understanding ethnic relations in a multiethnic region.

Learning Outcomes

- Student learn the history and development of ethnographic studies in North East India, problem faced by the people of North East India.
- Students will learn people and languages of Northeast India and their distribution.
- They will also learn overall biological anthropological research in Northeast region.
- They will learn about the history of Archeological research in North east India, its problems and prospects and also the pre-historic pattern.

SECTION: A

Unit I: Growth and development of Ethnographic and Socio-Cultural Anthropological studies in North-East India. Recent trends.

UNIT II: Problems in the North-East: Natural calamities, psychological alienation from the mainstream, insurgency, border disputes, trans-border migration, ethnicity

Unit III: Brief study of monographs: The Assamese, Culture Change in Two Garo Villages of Meghalaya, From Cattle to Cash, The Naked Nagas.

SECTION: B

Unit I: People of North-East India: State wise overview of ethnic groups and distribution; Classification of languages in the region.

Unit II: Biological anthropology in Northeast region: Population genetics in Northeast India; Emerging trends.

SECTION C

Unit I: Archaeological research in North-East-- History, development and emerging trends

Unit II: Problems and Prospects of archaeological research in North East

Unit III: Ethno- archaeology in North East

Unit IV: Prehistoric Cultural Pattern in North East – Palaeolithic, Mesolithic and Neolithic, Megalithic

Suggested Readings:

- Choudhury, Bapukan and PradipJyotiMahanta (eds). The World of Dr. B. M. Das: A Tribute, Assam Academy of Cultural Relations, Guwahati.
- Dani, A.H. 1960. *Prehistory and Protohistory of Eastern India*. Calcutta: Firma L. Mukhopadhyay.
- Jamir, T. and M. Hazarika (Eds). 2014. *50 Years After Daojali-Hading: Emerging Perspectives in the Archaeology of Northeast India – Essays in Honour of Tarun Chandra Sharma*. New Delhi: Research India Press.
- Das, B.M. Variation in Physical Characteristics in the Khasi Population of North East India.
- Das, B.M. ed (1974) Contemporary Anthropological Research in Northeast India.
- Das, F. A. and I. Barua (1996), Communities in Northeast India.
- Goswami, M.C. and P.B. Das. (1990), The People of Arunachal Pradesh: A Physical Survey.
- Hazarika, M. 2017. *Prehistory and Archaeology of North East India: Multidisciplinary Investigation in an Archaeological Terra Incognita*. New Delhi: Oxford Press.
- Hodson, T. C.,(1989) The Naga Tribes of Manipur.
- Majumdar, D N., North East India: A Profile in T C Sharma and D N Majumdar, eds. Eastern Himalayas, pp. 23-62.
- Miri, M., Linguistic Situation in Northeast India. Shillong: NEICSSR.
- Mushrif-Tripathy, V., Jamir, T., Vasa, D. and S.R. Walimbe. 2009. *Human Skeletal Remains from Jotsoma, Nagaland: Osteobiographic Studies*. Kolkata: Centre for Archaeological Studies and Training, Eastern India.
- Raha, M.K. and A.K.Ghosh, *North-East India: The Human Interface*.
- Sengupta, S., *Studies in Anthropology: Recent Perspectives*.
- Singh, B.P., *The Problem of Change: A Study of Northeast India*.
- Subba, T.B. and Ghosh, G.C. (eds) .*Anthropology of Northeast India*.
- Sengupta, G. and S. Panja (eds). 2002. *Archaeology of Eastern India: New perspective*. Kolkata: Centre for Archaeological Studies and Training, Eastern India.
- Sharma, S. 2014. *A Sourcebook of Archaeology of Himalyan Region: Arunachal Pradesh*. Kolkata: Centre for Archaeological Studies and Training, Eastern India.

SEMESTER- IV SPECIAL PAPERS

PAPER: ANT 1002SP-I
APPLIED AND RURAL-URBAN ANTHROPOLOGY
CREDITS: 5 (3+2+0)

Section A: Applied Anthropology

COURSE OUTLINE---- This course has been divided into two sections.

- Section A tries to deal with concepts of Applied, Action and Practicing Anthropology along with its emerging trends and its situation in India.
- Section B tries to give an idea about rural and urban society and rural-urban continuum.

The learning outcomes of this paper are:

- The students learn about the application of Anthropology in various fields and the emerging trends of applied anthropology.
- Students get to know about the nature of rural society in India and its changing aspects.
- They also learn about the nature of urban society, urbanization and its consequences.

Unit I: Applied Anthropology, Action Anthropology and Practicing Anthropology.
Applications of Anthropology in health, education, industry and agriculture.

Unit II: Applied Anthropology in India

Unit III: Emerging trends in applied anthropology

Section B: Rural-Urban Anthropology

Unit I: Characteristics of rural society; rural society in India: characteristics and change

Unit II: Characteristics of urban society; urbanization and urbanism; urban ecology; social consequences of urbanization

Unit III: Rural-urban continuum

Recommended Readings:

Cochrane, G., 1971. *Development Anthropology*, New York: OUP.

Day, James AP (ed.), *Perspective in Kinanthropology*, Illinois: Human Kinetics Publishers.

Epstein, TS, *The Craft of Social Anthropology*.

Foster, G.M., 1962. *Traditional Cultures and the impact of Technological Changes*, New York: Harper & Row.

Hoebel et. al. (eds.), 1955. *Reading in Anthropology*, New York: McGraw- Hill.

Jayapalan, N. 2002. *Urban Sociology*. Delhi: Nice Printing Press.

Mahajan, A. & Nath, S., 1992. *Application Areas of Anthropology*, New Delhi: Reliance.

Mair, Lucy, 1957. *Studies in Applied Anthropology*, London.

Spicer, *Human Problem in Technological Change*, New York: Sage.

Vidyarthi, LP., 1990. *Applied Anthropology in India*.

PAPER: ANT 1002 SP-II

BIOLOGICAL ANTHROPOLOGY AND POPULATION VARIATION

CREDITS: 5 (3+2+0)

COURSE OUTLINE---- This course tries to

- impart knowledge on the biological aspects including red cell antigens, human haemoglobin, red cell enzymes, population variation, miscegenation and eugenics.

Learning outcomes

- Students will learn various red cell antigens and clinical significance of blood groups and natural selection.
- They will learn about normal as well as abnormal haemoglobin types. They will also learn serum proteins.
- They will learn about red cell enzymes, red cell acid phosphatase, and inborn error of metabolism.
- They will learn probability and its application in genetics. They will also learn breeding types, consanguinity and miscegenation.
- They will also learn eugenics and its movement history.

Unit I: Red cell antigens: ABO and Rh(D) blood groups, Bombay phenotype, MNSs system, Lewis antigen, Xg blood groups and HLA.

Unit II: Human Haemoglobin: Normal Physiological Haemoglobin and Abnormal types: HbS, HbC&HbE. Thalassamia; Serum proteins – Haptoglobin, Immunoglobulin and Transferins (tf), Group specific component; Group specific components;

Unit III: Red cell enzymes: G-6-PD Deficiency; Red cell acid phosphatase, Phosphogluco-mutase; Inborn error of metabolism: Alkaptonuria, phenylketonuria (PKU), sickle cell anaemia.

Unit IV: Probability: Rules of Probability Genetic Ratio

Unit V: Breeding population—mating patterns: random mating, assortative mating; Consanguinity and inbreeding coefficient, genetic load, genetic isolates; Miscegenation

Unit VI: Eugenics: Positive and negative movements.

Recommended Readings:

Boyd, W.C. *Genetics and the Races of Man*, Little Brown & Co. Boston, 1950.

Carlson, E.A., *Human Genetics*, Tata McGraw – Hill Pub. Co. Ltd, New Delhi, 1985.

Das, B M. *Outline of Physical Anthropology (26th Edition)*. Kitab Mahal, Allahabad, 2008.

- Gardner, Simmons, M. J., Snustad, D. P., *Principals of Genetics (8th Edition)*. John Wiley & Sons Pvt. Ltd., Singapore, 2006.
- Harrison GA, Tanner, J.M., Pilbeam, D.R. and Baker P.T., *Human Biology: An Introduction to Human Evolution, Variation and Growth and Adaptability 3rd edition*. Oxford University Press. Oxford, 1988.
- Hooton, A.E., *Up from the Ape*, Macmilan, Delhi, 1965.
- Lasker, G.W., *Physical Anthropology*, Holt, Rinehart &Wiston, New York, 1976.
- Livingstone, F.E., *Abnormal Haemoglobin in Human Populations*, Aldine Publication, Chicago, 1967.
- McKusick, V.A., Antonarakis, S.E., *Mendelian Inheritance in Man: A Catalog of Human Genes and Genetic Disorders*, Volume 2, Johns Hopkins University Press, Baltimore, Maryland, United States, 1998.
- Mckusick, V.A., *Human Genetics*, Prentice Hall, New Delhi, 1969.
- McKusick, V.A., *Mendelian Inheritance in Man: Catalogs of Autosomal Dominant, Autosomal Recessive and X Linked Phenotypes*, Baltimore, Maryland, United States, 1966.
- Montagu, M.F.A., *An Introduction to Physical Anthropology*, Charles C. Thomas, Illinois, 1961.
- Mukherji, D., Mukherjee, D, Bharati, P., *Laboratory Manual for Biological Anthropology*, Asian Books Pvt. Ltd., New Delhi, 2009.
- Race, R.R. and Sanger, R., *Blood groups in Man*, Blackwell Scientific Publications, Oxford, 1975.
- Rothwell, N.V. *Human Genetics*, Prentice Hall of India, New Delhi, 1978.
- Sarkar, R M. *Fundamentals of Physical Anthropology*. Vidyodata Library Pvt. Ltd. Calcutta, 1997.
- Stern, Curt, *Principles of Human Genetics*, Eurasia Publishing House Pvt. Ltd., New Delhi, 1963
- Stoneking, Mark, *An Introduction to Molecular Anthropology*, Wiley-Blackwell, New Jersey, 2017.
- Underwood, J.H., *Human Variation and Human Microevolution*, Prentice Hall, Inc., New Jersey, 1979.

Winchester, A.M., *Genetics*, Oxford & IBN Publishing Co., New Delhi, 1967.

PAPER: ANT 1002 SP-III
RESEARCH METHODOLOGY IN ARCHEAOLOGICAL ANTHROPOLOGY
CREDITS: 5 (3+1+1)

COURSE OUTLINE---- This course deals with the

- methods of data collection by locating archaeological site, excavation and conceptualization of site.
- The course aims to impart knowledge on recovery of data, method of recording and method of analysis and finally reconstruction of cultural processes. It also gives a picture of social evolution.

The learning outcomes of this paper are:

- The students will learn the process of Archeological research about different data and records
- They will learn how to design a research hypothesis.
- They will learn the technique and method in field archeology and data analysis.

Unit I: Process of Archaeological Research.

History and Development of Archaeological Research Methodology, Environmental archaeology, Settlement Archaeology, Experimental Archaeology, Ethological Study, Cognitive Archaeology.

Unit II: Archaeological Data and Records – Artifact, features, structures, eco facts, site.

Unit III: Archaeological Culture and Other Units – Area, Region, and Tradition.

Unit IV: Research Design:

- A. Definition
- B. Problem, Scope and Limitation,
- C. Review of Literature
- D. Formulation of Hypothesis,
- E. Model Building,
- F. Testing of Hypothesis.

Unit V: Recovery of Data

- A. Methods of Exploration: Location and Identification of Archaeological Sites, Earth Resistivity Survey, Other Scientific Aids, Remote Sensing, Geographic Information System (GSI), Topo-sheets, Aerial Photography.
- B. Methods of Excavation: Test Pits and Trial trenches, Vertical and Horizontal Excavation.
- C. Method of Recording: Mapping, Stratigraphic Recording, Three Dimensional Recording, Use of Computer in Archaeological Documentation.

Unit VI: Methods of Analysis:

- A. Classification of Data – Conventional Classification – Morphological, Functional, Temporal and Cognitive Type
- B. Chronology : Relative and Chronometric Dating – Radio Carbon Dating, Potassium – Argon Dating, Thermo-luminescence Dating, Racemization and Archaeomagnetic Dating, Dendro-Chonology, Palaeontology, Palynology, Varve Clay Analysis, Fluorine Analysis, Fission Tract Dating, Obsidian Dating and Optical Stimulated Luminescence (OSL) Dating.

Unit VII: Methods of Interpretation and Reconstruction of Cultural Processes

- A. Social Evolution in Prehistory from Savagery to Civilization.
- B. Evolutionary Theories in Ethnography; With Reference to Morgan, Gordon Childe, L. White, Julian Steward.
- C. Sociological Interpretation of Archaeological Data.

Unit VIII: Site Catchment Analysis: Basic Concept.

Recommended Books:

- Bernard, H. Russell, 1994, *Research Methods in Anthropology: Qualitative and Quantitative Approaches* (2nd edn), Thousand Oaks, CA, Sage.
- Bernard, H. Russell, 2000, *Social Research Methods: Qualitative and Quantitative Approaches*, Thousand Oaks, CA, Sage.
- Binford, L.R. 1983. *Working at Archaeology*. New York: Academic Press.
- Binford, L.R. *An Archaeological Perspective*, Seminar Press.
- Burns, Robert B., 1997, *Introduction to Research Methods* (2nd edn), Melbourne, Longman Cheshire.
- Butzer, K.W. *Environment and Archaeology*, Methuen & Co. Ltd.
- Childe, V.G. *Social Evolution*, Watts & Co.
- Clark, D. L. *Analytical Archaeology*, Methuen & Co. Ltd.
- Cornwall, I.W. *Soils for the Archaeologist*. Phoenix.
- Dunnell, R.C. *Systematics in Prehistory*. The Free Press.
- Evans, J.G. *Environmental Archaeology*, Paul Elek.
- Gabel, C. *Analysis of Prehistoric Economic Patterns*
- Chakrabarti, D.K. 1989. *Theoretical Perspectives in Indian Archaeology*. New Delhi: MunshiramManoharlal.
- Dancey, W.S. 1985. *Archaeological Field Methods: An Introduction*. New Delhi: Surjeet Publications.
- Hazarika, M. 2017. *Prehistory and Archaeology of Northeast India: Multidisciplinary Investigation in an Archaeological Terra Incognita*. New Delhi: Oxford University Press.

- Jamir, T. and M. Hazarika (Eds). 2014. *50 Years After Daojali-Hading: Emerging Perspectives in the Archaeology of Northeast India – Essays in Honour of Tarun Chandra Sharma*. New Delhi: Research India Press.
- Paddayya, K. 1978. *Now research designs and field techniques in the Palaeolithic archaeology of India*. *World Archaeology* 10: 94-110.
- Paddayya, K. 1979. *Palaeoethnography vis-à-vis the Stone Age cultures of India: Some methodological considerations*. *Bulletin of the Deccan College*.
- Renfrew, C. eds. *The Explanation of Culture Change: Models in Prehistory*, Duckworth.
- Rouse, I. *Introduction to Prehistory*. Yale University Press.
- Sankalia, H.D. *New Archaeology: its Scope and applications to India*. Ethnographic and Folk Culture Society.
- Trigger, B.G. *Beyond History: The Methods of Prehistory*.
- Willey, G.R. *Methods and Theory in American archaeology*. Phoenix Philip Phillips.

OPTIONAL PAPERS

PAPER: ANT 1003OE

ETHNOGRAPHY: THEORY AND METHODS

CREDITS: 4 (2+2+0)

COURSE OUTLINE---- Ethnography is central to Social and cultural anthropology. Over the years, there has been rich and varied development in ethnographic research in different academic disciplines including Anthropology. The Course aims at

- developing critical understanding on the nature of ethnography and ethnographic methods in contemporary social sciences with insights into different theoretical schools of thought.
- The students will also be introduced to some important areas where ethnography has been successfully applied.

The learning outcomes of this paper are:

- Students will learn about the history and development of Ethnography and

auto ethnographic studies.

- They also learn the different approaches to ethnography.
- They learn to locate ethnographies in different context as well as ethics of Ethnography.

Unit I: Concept and Definition of ethnography; Autoethnography; History and development of ethnographic studies: Malinowski and anthropological tradition; Contributions of British Social Anthropology and American school: Boas, Benedict.

Unit II: Levi-Strauss, Geertz; The Chicago school of ethnography

Unit III: A brief overview of different approaches to ethnography: Ethnography and symbolic interactionism; Orientalism; Ethno-methodology and ethnography; Phenomenology; Grounded theory in Ethnography;

Unit IV: Locating ethnographies in different contexts: education;; work and occupations;; childhood and enculturation; material culture; communication (including ethnography); Ethics of ethnography.

Recommended readings:

Atkinson P, A.Coffey, S. delamont; J. Loafland and L Loafland. *Handbook of Ethnography*

Burawoy M. et al.*Ethnography Unbound: Power and Resistance in the modern Metropolis*

Clifford J and G.E Marcus. *Writing Cultures: The poetics and Politics of Ethnography*

Malinowski B. *Argonauts of Western Pacific*

Mead, M. *Coming of Age in Samoa*

O'reilly,K.*Ethnographic Methods*.

PAPER: ANT 1031E
DENTAL ANTHROPOLOGY

CREDITS: 4 (2+2+0)

COURSE OUTLINE---- This course deals with

- aim and scope of dental anthropology with special emphasis on dental morphology, oral health and disease.

Learning Outcomes

- Students will learn about dental anthropology, tooth types and dental formula, and evolution of human dentition.
- They will learn dental morphology, structure and function of teeth, eruption pattern of teeth, age and sex determination from teeth, and dental mutilation.
- They will also learn the mandibular and maxillary teeth, arch forms and dental occlusion.
- They will also learn human dental variation, dental pathology, oral health and disease.

Unit I: Aims and objectives of dental anthropology. Terms, Tooth types and formula. Evolution of human dentition.

Unit II: Dental morphology, Structure and function, Mutilations, Attrition, Eruption of primary and secondary teeth. Age and Sex determination from teeth

Unit III: Maxillary and mandibular teeth, Occlusion; Dental arch forms; Neurobehavioral aspects of dentition

Unit IV: Human variation in dental morphology, eruption and dental pathology

Unit V: Oral health and dental diseases

Recommended Readings:

Alt,K.W., F.W. Rosing and M.Treschler-Nicola 1998. *Dental Anthropology*. New York: Springer.

Ash, M.M. 1988. *Dental Anatomy, Physiology and Occlusion*, Philadelphia: W.B. Saunders C.

Le Gros Clark, W.E., 1978. *The Antecedents of Man*, Univ. Press. Edinburgh,

Reddy, Rami V. 1986. *Dimension of Anthropology: Dentition, Pathology, and Crown Morphology*, New Delhi: B.R. Publisher S.

Simons, E.L. 1972. *Primate Evolution*. New York: Macmillan.

Singh, I.P. and M.K. Bhasin. 2004. *A Manual of Biological Anthropology*. Delhi: Kamla-Raj Enterprises.

PAPER: ANT 1051E
ENVIRONMENTAL ARCHAEOLOGY
CREDITS: 4 (3+1+0)

COURSE OUTLINE----this paper deals with the

- different aspects of environmental Archaeology including geo archaeology geo morphology and sedimentology.

The learning outcomes of this paper are:

- Students will learn about environment anthropology and Pleistocene environment.
- They will learn about geo archaeology and its importance of environment.
- They will learn about geo morphology and its different aspects in studying Archaeology.
- They will learn about sedimentology and its importance in the formation process and re-constructing the environment of Archaeological sites.

Unit I: Environmental Archaeology / Palaeo – Ecology

A. Definition and Scope.

- B. Ecology and Environment: Physical Environment, Biological Environmental,
- C. Palaeo-environment / Pleistocene Environment – Glacial and Inter Glacial: Pluvial and Inter-Pluvial. Sea level fluctuations.

Unit II: Geo – Archaeology: Definition, Aims and Scope; its Importance in Environmental reconstruction.

Unit III: Geomorphology - Geomorphology in Archaeology

- A. Geomorphological Study of Archaeological Sites;
- B. Glacial Geomorphology
- C. Peri-glacial Geomorphology
- D. Arid Geomorphology
- E. Tropical Geomorphology.

Unit IV: Sedimentology: River, Stream and Lake Sediments; Impact on Archaeological Site Formation Process.

Recommended Books:

Butzer, K.W. *Environment and Archaeology*.

Charlesworth, J.K. *Quaternary Era Anthropology*.

Davidson, D.A. *Geo-Archaeology, earth Science and Past*. Shackley, M.L.

Evans J.G. *Environmental Archaeology*.

GSI Memior 32. *Quaternary Environments and Geoarchaeology of India*.

Pettijohn, F.J. *Sedimentary Rocks*.

PAPER: ANT 1002C/1004DPW

DISSERTATION

CREDITS: 0+0+6

Dissertation must be on a well-defined topic. This paper is based on fieldwork for a period as decided by the concerned faculty of the department.

The learning outcomes of this paper are:

- The students will learn to apply various field technique in their first hand study of any given community.
 - Students have to prepare their own research design.
 - They learn how to write dissertation on a specific topic.
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