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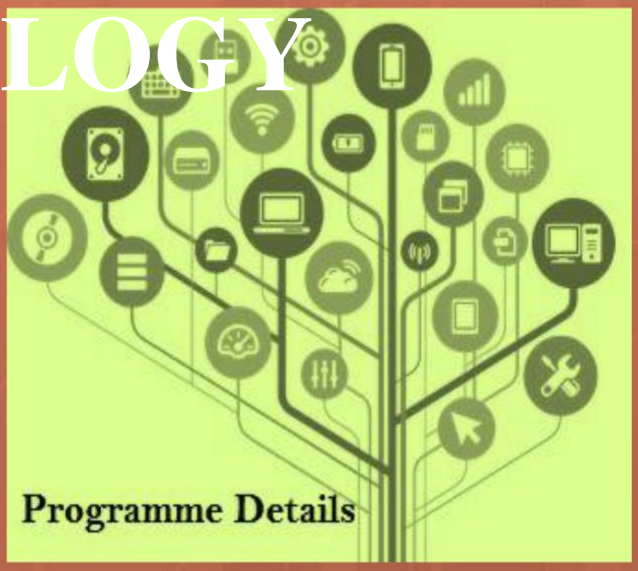
University of Mysore

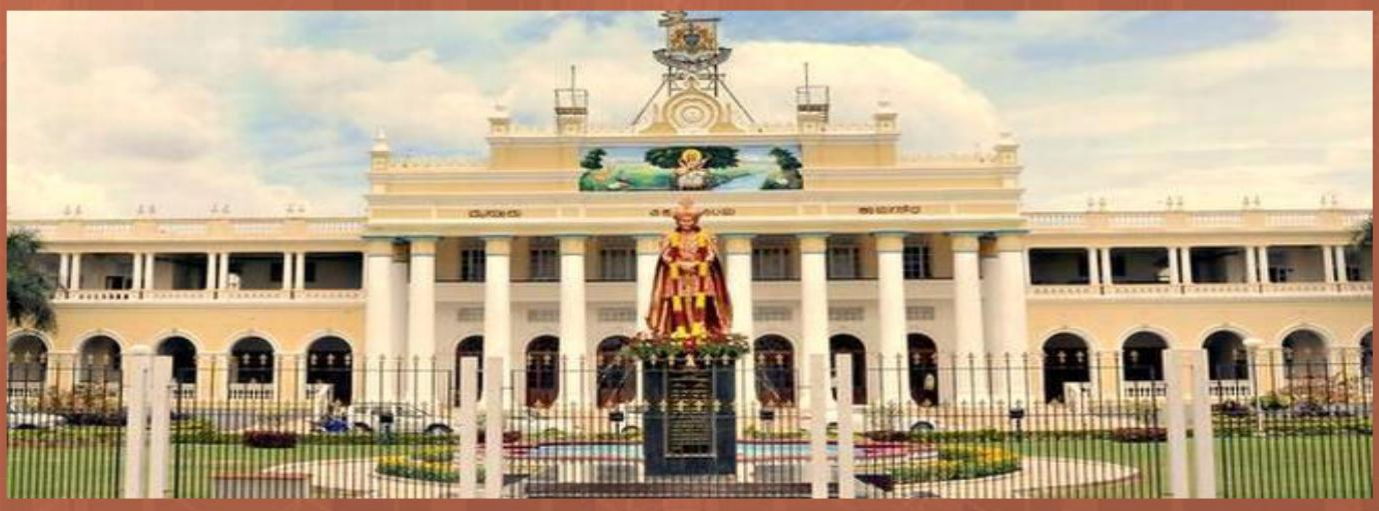
(Estd.1916)

M.Sc.

ANTHROPOLOGY

Choice Based Credit System (CBCS)





UNIVERSITY OF MYSORE

Department of Studies in Anthropology
Manasagangotri, Mysuru-570006

Regulations and Syllabus
Master of Science in Anthropology (M.Sc.)
(Two-year semester scheme)

Under
Choice Based Credit System (CBCS)

CHAIRMAN
Department of Studies in Anthropology
University of Mysore
Manasagangotri, Mysore - 6

UNIVERSITY OF MYSORE

GUIDELINES AND REGULATIONS
LEADING TO
MASTER OF SCIENCE IN ANTHROPOLOGY
(TWO-YEAR SEMESTER SCHEME UNDER CBCS)

Programme Details

Name of the Department	: Department of Studies in Anthropology
Subject	: Anthropology
Faculty	: Science and Technology
Name of the Programme	: Master of Science in Anthropology (M.Sc.)
Duration of the Programme	: 2 years divided into 4 semesters

Programme Outcomes

On successful completion of this programme, each student will be able to:

- Understanding the anthropological perspective built upon a holistic view on cultural and biological systems.
- Learn human diversity and its significance. It would lead to respect for people whose culture differs from ours.
- Develop an understanding of local and global processes and social complexity through space and time.
- Develop basic knowledge of data collection methods and the analytic techniques and that anthropologists use to evaluate these data.
- A familiarity with and knowledge in the four sub-fields of anthropology (archaeology, biological anthropology, cultural anthropology, and linguistic anthropology along with the interdisciplinary approach to understand human culture/society/behaviour
- A familiarity with the multiple ways of approach their knowledge and skills as professionals inside and outside of any organization upon to develop decision making capability.

- The ability to find data relevant to a research question and design a research strategy that takes such work into account and appropriate to the specific context of the research site.
- Competence in the collection and analysis of quantitative and qualitative data related to human behaviour and culture and a recognition of the strengths and limitations of both.
- The recognition of a diversity of cultural practices and belief systems.
- The skills and desire to be engaged and informed global citizens and apply anthropological training and perspective to life's challenges

Programme Specific Outcomes (PSOs):

1. Acquire reasonable level of theoretical and practical knowledge of advance elective they have opted during this course in anthropology.
2. Relate all the core and elective papers with each other and with overall health of populations, their relation with social and political environment of communities.
3. Delete the major health or social problems of society/populations and they should themselves give research based feasible solutions related any aspect of human life.
4. Understand the importance of anthropological research in policy making and improving human life.

Scheme of Examination and Details of Course Patterns for M.Sc. Degree Course (CBCS)

First Semester							
Sl. No.	Code	Title of the Paper	Credit pattern in			Credit value	Teaching hours/ week
			L	T	P		
1	13101	Social - Cultural Anthropology (HC)	3	1	0	4	
2	13102	Biological and Archaeological Anthropology (HC)	3	1	0	4	
3	13103	Research Methods in Anthropology – I (HC)	3	1	0	4	
4	13104	Anthropological Theories -1 (SC)	3	1	0	4	
5	13105	Ethnographic Studies (SC)	3	1	0	4	
6	13106	Anthropology of Communication (SC)	3	1	0	4	

Second Semester					
Sl.	Code	Title of the Paper	Credit	Credit	Teaching

No.			pattern in			value	hours/ week
			L	T	P		
1	13111	Research methods in Anthropology – II (HC)	3	1	0	4	
2	13112	Applied Anthropology (HC)	3	1	0	4	
3		Practicals Studies in Biological, Social-Cultural and Archaeological Anthropology (HC)	0	0	4	4	
4	13113	Anthropological Theories – II (SC)	3	1	0	4	
5	13114	Ethno Medicine (SC)	3	1	0	4	
6	13115	Foundations in Anthropology (OE)	3	1	0	4	

Third Semester							
Sl. No.	Code	Title of the Paper	Credit pattern in			Credit value	Teaching hours/ week
			L	T	P		
1	13131	Human Evolution and Human Biology (HC)	3	1	0	4	
2	13132	Human Genetics (HC)	3	1	0	4	
3		Practical Studies in Osteometry- Serology And Estimation of Hemoglobin Content (HC)	0	0	4	4	
4	13133	Forensic Anthropology (SC)	3	1	0	4	
5	13134	Human Growth and Nutrition (SC)	3	1	0	4	
6	13135	Genetic Counselling (OE)	3	1	0	4	

Fourth Semester							
Sl. No.	Code	Title of the Paper	Credit pattern in			Credit value	Teaching hours/ week
			L	T	P		
1	13151	Anthropological Demography (HC)	3	1	0	4	
2		Practical Studies in Advanced Biological Anthropology (HC)	0	0	4	4	
3		Field Work and Dissertation (HC)	0	1	3	4	
4	13152	Molecular Anthropology (SC)	3	1	0	4	
5	13153	Anthropological Statistics (SC)	3	1	0	4	
6	13154	Sports Anthropology (OE)	3	1	0	4	

Note: Seminars, Case Study, Discussion and Round Tables etc., are all part of Tutorials.

FIRST SEMESTIER

HARD CORE

COURSE – I: SOCIAL - CULTURAL ANTHROPOLOGY

Course outcome

On successful completion of this programme, each student will be able to:

- Examine the central focus and significant concepts in Anthropology, more particularly in Social-Cultural Anthropology.
- Understand on basic concept of Culture, society, community, group, association, social structure, social organization status and role.
- Comprehend the relationship within branches of Anthropology and with all sciences, resolve the discussion about using dual terms such as Social-Cultural Anthropology.
- Understand about social institution and Economic, Political and religious organization.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I: Introduction

a. Meaning and scope of social - cultural anthropology
b. Relations with other branches of anthropology
c. Relations with other social and behavioural disciplines: History, Sociology, Political Science, Economics, Psychology and Geography
d. Basic concepts: Culture, society, community, group, association, social structure, social organization status and role.

Unit II: Family and Marriage

a. Family: Definitions and universality; household and domestic group; division of labour; typologies (conjugal, consanguineal, nuclear, joint, extended, patrilocal, matrilocal)
b. Functions of family; trends of change, the changing joint - family in India.
c. Marriage: Definitions and universals, incest and incest taboo; marriage rules (endogamy and exogamy, levirate and sororate, preferential and prescriptive); marriage forms (monogamy and polygamy)
d. Marriage: Functions of marriage; marriage payments (dowry and bride-price); marriage stability and divorce; widowhood and remarriage.

Unit III: Kinship Organization

a. Concept and nature of kinship: consanguinity and affinity; fictive kinship
b. Principles and types of descent: Unilineal, double, bilateral and ambilineal; distinction between descent and filiation
c. Patterns of residence: Patrilocal, matrilocal, uxorilocal, virilocal and neolocal Inheritance and succession.
d. Kingroups: Lineage, clan, sib, phratry and moiety.
e. Kinship terminology: descriptive and classificatory; terms of address and terms of reference; terminological systems (Crow, Omaha, Eskimo, Hawaiian, Sudanese and Iroquois)
f. Kinship behaviour, kinship obligations, joking and avoidance relationship, couvade, avunculate and amitate, technonymy.

Unit IV: Economic, Political and Religious organizations

a. Folk (tribal), peasant, pastoral and urban economies distinguished

Salient features of pre - industrial economies: „primitive communism", concepts of subsistence and surplus economies, principles of production, distribution and consumption; systems of exchange (reciprocity, redistribution, barter and trade)

b. Types of political organizations of simple societies: egalitarian and non egalitarian, centralized and decentralized.

c. Differences between stateless and state societies

d. Nature of religion in simple societies: animism, animatism, fetishism, naturism and totemism.

e. Religion, magic and science distinguished.

f. Magico-religious functionaries in simple societies: priest, shaman, witch, sorcerer.

Recommended Readings:

1. Ember. C. R. and M. Ember 2002 - Anthropology. New Delhi: Prentice -Hall of India Pvt. Ltd.
2. Evans-Pritchard, E.E. 1990 - Social Anthropology. New Delhi: Universal Book Stall
3. Fox Robin 1967 - Kinship and Marriage. Penguin book
4. Haviland, W.A 1993 - Cultural Anthropology. London: Harcourt and Brace
5. Scupin, R and C.R. Decorse. 2005 - Anthropology. New Delhi: Prentice Hall of India

COURSE–II: BIOLOGICAL AND ARCHAEOLOGICAL ANTHROPOLOGY Course outcome

On successful completion of this programme, each student will be able to:

- Understand the basis for studying Man as a biological being, keeping the process of organic evolution in focus.
- Understand the traditional and modern theories of human evolution, their strength and weakness
- Examine the concept of race and race variations in the light of human genetic principles
- Highlight the anthropological perspectives of archaeological material.
- Recall the geological time scale, environment, stratigraphy and their characteristics

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Section - I Biological anthropology

Unit I:

a. Meaning and scope of biological anthropology

b. History and development of biological anthropology

c. Relations with other branches of anthropology

d. Relations with other biological and earth sciences (anatomy, medicine, genetics, dental science, geology)

Unit II:

a. Man's place in the animal kingdom

b. Comparative anatomy of man and apes; hominid evolution (bipedalism and erect posture)
c. Theories of organic evolution (Lamarckism, Darwinism and synthetic theory)
d. Fossil evidences for the emergence of man: Australopithecus, Pithecanthropus, Homo erectus, Neanderthal man and Homo sapiens. e. Human genetics: Mendelian genetics in man
f. Methods for studying genetic principles in man
g. Race: major races of mankind; criteria for racial classification

Section –II: Archaeological anthropology
Unit III:

a. Meaning and scope of archaeological anthropology
b. History and development of archaeological anthropology
c. Relations with other branches of anthropology
d. The brands of Old World and New World Archaeology
e. Geological time scale, glacial and inter - glacial periods, terraces and moraines

Unit IV:

a. The methods of dating (absolute and relative) and their relevance in archeological anthropology
b. Stone tool technology and typology during Palaeolithic, Mesolithic and Neolithic periods
c. The meaning of civilization
d. The main centers of civilization
e. The rise and fall of Indus valley civilization

Recommended Readings :

1. Buettner –Janusch, J 1969 - Origins of man, New Delhi: Wiley - Eastern Pvt Ltd.
2. Das, B.M 2002 - Outlines of Physical Anthropology, Alahabad: Kitab Mahal
3. Das Sharma .P. 1987 - Human Evolution, Ranchi: Chalcolithic Press
4. Jurmain, R. and H. Nelson 1998 - Essentials of Physical Anthropology. New York: Wardworth Kilgore
5. Rami Reddy, V. 1992 - Physical Anthropology,Evolution and Genetics: Tirupati: V. Indira, Publisher.
6. Shukla, B.R.K. and S. Rastogi, 1998 - Physical Anthropology and Human Genetics, Delhi: Palaka Prakashan
7. Rami Reddy, V. 1987 - Elements of Prehistory. New Delhi: Mittal Publishers
8. Sankalia, H.D. 1964 - Stone Age tools. Pune : Deccan College

COURSE – III: RESEARCH METHODS IN ANTHROPOLOGY -

I Course outcome

On successful completion of this programme, each student will be able to:

- Appreciate the holistic research perspective in anthropology
- Draw genealogies and collect verbal as well as nonverbal data.
- They would be able to prepare a questionnaire and interview schedule to collect information on a specific topic and also organize and take notes in a focus group discussion.

- Collect a life history and other data from an informant and analyze them to understand a problem given to them.
- Operationalise all these methods and undertake a field based research and prepare a report on a given topic

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

a. Anthropology as a natural science
b. Anthropology as a social science
c. Anthropology as a humanistic discipline
d. The history of field work tradition in anthropology
e. Salient features of anthropological research: fieldwork, holism, comparison, bio-cultural approach; the question of subjectivity: and value neutrality; macro - micro approaches; emic-etic approaches.
f. Salient features of anthropological research: establishment of rapport, learning the native language, participant - observation, the use of key - informants; the ethical dimension of conducting the fieldwork.

Unit II:

The basic techniques of data collection:
a. Observation (obtrusive and unobtrusive)
b. Interviewing (unstructured, semi - structured and structured)
c. Collection of genealogies and pedigrees
d. Collection of life histories
e. Use of documents (personal, sacred, official and historical)

Unit III:

The basic techniques of data collection:
a. Case - study
b. Extended case study
c. Interview guide
d. Interview schedule

Unit IV: The basic techniques of data collection:

a. Social survey
b. Projective tests
c. Proxemics and kinesics
d. Content analysis of myths, folktales and
literature e. Video tape research
f. Taking and managing field writings (Field notes, field diary, field jottings and log book)
g. Rapid appraisal procedures (Mark Nichter, Scrimshaw and Hurtado)

Recommended Readings :

1. Bernard, H.R 1998 - Research Methods in Cultural Anthropology. New Delhi: Sage publication.
2. Fetterman, D.H. 1989 - Ethnography: step by step. New Delhi: Sage publications.
3. Peacock, J.L 1988 - The Anthropological Lens. Cambridge: Cambridge University Press.
4. Pelto, P.J. and G.H Pelto, 1978 - Anthropological research. Cambridge: Cambridge University Press.
5. Young, P.V. 1994 – Scientific Social Surveys and Research, New Delhi: Prentice-Hall of India.
6. Weller,S.C and A.K Romney 1990 - Systematic Data Collection. Newbary Park: Sage Publication
7. Scrimshaw, C. M. and H. Hurtado 1989 - Rapid Assessment Procedures. Tokyo : UN University.
8. Nichtes, M. 1984 - Participatory Research as a first step. In Social Science and Medicine, Vol. 19, No.3 pp. 237 –257.

SOFT CORE

COURSE – IV: ANTHROPOLOGICAL THEORIES -1

Course outcome

On successful completion of this programme, each student will be able to:

- Critically assess theoretical contributions of Anthropologists
- Understand various concepts and theories and their interpretations in traditional areas of Anthropology and contemporary issues
- Evaluate the role of Anthropologists as scientists, as humanist, and as citizens of a nation Understand the interaction of micro and macro paradigms of development

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

a. Evolutionary theories: Classical evolutionism and Neo-evolutionism.
b. Diffusionist theories: the concept of diffusion; the British School; the German - Austrian School; and the American School.

Unit II:

a. Functionalism of B. Malinowski and A.R Radcliffe Browns
b. Culture and personality theories of Ruth Benedict and Margaret Mead.

Unit III:

a. Structuralism: British, French and Dutch Schools.
b. Cultural ecological theory of J.H. Stewards

Unit IV:

a. Cultural materialist theories of Marvin Harris, Eric Wolf and M. Sahlins.

b. Marxist theories of British and French schools.

Recommended Readings:

1. Bloch, M (1975) Marxist analysis in Anthropology. London: Malaby
2. Bloch, M (1983) Marxism and Anthropology. Oxford: Clarendon Press
3. Jha, M (1994) An Introduction to Anthropological Thought. New Delhi, Vikas Publishers.
4. Kuper, A (1996 (1973)) Anthropologists and anthropology. London: Routledge and Kegan Paul
5. Barnard, A (2000) History and Theory in Anthropology. Cambridge: Cambridge University Press
6. Layton , R (1997) An Introduction to Theory in Anthropology. Cambridge: University Press.
7. Upadhyaya, V.S and G. Pandey (1997) History of Anthropological Thought. New Delhi: Concept publishers.

COURSE – V: ETHNOGRPHIC STUDIES

Course outcome

On successful completion of this programme, each student will be able to

- Deference between Ethnography and ethnology.
- Understand major ethnological and ethnographic regions of world and India.
- Critically comment on the methodology and findings of an ethnographic account.
- Critically examine the theoretical approach followed.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I: Introduction:

Ethnographic studies and their importance in Social-cultural anthropology. Distinction between Ethnography and Ethnology.

Unit II:

Major ethnological-ethnographic regions of the world and brief description of their salient features. (Ralph Linton and G.P Murdock)

Major cultural zones of India and brief description of their salient features. (N.K. Bose and I. Karve)

Unit III:

Study of a mongraph inside India (one of the following monographs to be selected by the concerned teacher each year) :

a. Anthony Walker : The Todas

b. Louis Dumont : The Pramialai Kallar

c. T.S. Epstein : Economic Development and Social Change

Unit IV:

Study of a monograph outside India (one of the following monographs to be selected by the concerned teacher each year):

a. E. E. Evans- Pritchard : The Nuer
b. Colin Turnbull : The Forest People
c. Napolean Chagnon : The Fierce People

Recommended Readings:

1. Bose, N. K. 1962 - Peasant society and culture. Kolkatta: Anthropological Survey of India
2. Karve, I. 1962 - India as a cultural region. In Indian anthropology ed by T.N. Madan and G. Sarana. Bombay: Asia Publishing House.
3. Karve, I. 1961 - Kinship organization in India, Bombay Asia publishing house
4. Linton, R. - The Tree of culture.

COURSE – VI: ANTHROPOLOGY OF COMMUNICATION Course outcome

On successful completion of this programme, each student will be able to

- Insights into communication processes so that a student acquires a better understanding of society and culture both in continuity and change and the role and functions of communication in socialization, cultural change and development processes in communities of varying complexities; tribal, rural and urban
- Enable discussion about Channels of communication

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Meaning and definition and communication: The nature, role and function of communication human communication, approaches to study of communication Anthropological, Sociological and Psychological perspectives of communication. Theories and models of communication.

Unit II:

Channels of communication: Inter – Personal and oral communication, mass communication, transport communication, electronic media, satellite communication. The process of information dissemination. 1. Folk media, Folk dance, drama, tales, puppet show, storytelling, music, theatre & their communication Potentiality. 2. Mass media, the elements of mass communication role of television, films, musicals, family serials and my theologies.

Unit III:

a. Culture & communication: Culture, history and technology. Socialization as cultural communication

b. Language & communication: verbal & non verbal communication – Art in an perspectives, phonographs and pictures, kinetics (Gestural Communication)

Unit IV:

Development communication: relationship between communication and development communication and urbanization, modernization process. The effects of mass media on youth, children, women, disadvantaged group. The role of communication in education, agriculture, health and family welfare and national development, communication and the dynamics of social and cultural change.

Recommended Readings:

1. Rogers, E.M., 1971 - Communication of Innovations, New York: The Free Press
2. Nair, S. and White, S.- Perspective on Development Communication.
3. Rogers, E. - Communication and Development; Critical Perspectives.
4. Fisher, Andrey. B. - Perspective on Human Communication.
5. Ambekar, J.B.1992 - Communication and rural development, New Delhi: Mittal Publications,

6. Agrawal, B.C and Shashikala Vishwanath (eds) 1985 - Anthropological method and for communication research, New Delhi: Concept Publishing Company.

SECOND SEMESTIER

HARD CORE

COURSE – I: RESEARCH METHODS IN ANTHROPOLOGY – II

Course Outcomes

On successful completion of this programme, each student will be able to:

- Student able to understand the relevance of statistical techniques in Anthropology and various statistical applications
- Appreciate the holistic research perspective in anthropology
- Demonstrate the ability to produce a scientific report by combining the review of literature, data analysis and use of theory in putting forward generalizations.
- It will also bring home the fundamentals of anthropological fieldwork and its value to the discipline.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar Presentation, assignment writing and tests.

COURSE CONTENT

Unit – I

a. Relevance of statistical techniques in Anthropology

b. Measures of central tendency: mean, median and mode

c. Measures of variation: mean deviation, standard deviation, and co-efficient of variation

Unit – II

a. Frequency distribution
b. Histograms
c. Tests of significance: t-test and chi-square test
d. Determining the sample frame and size
e. Sampling: probability and non - probability

Unit – III

Preparation of research design:

a. Identification of research problem, field site and methods of data collection
b. Review of literature
c. Formulation of research problem
d. Formulation of hypothesis
e. The nature, purpose and methods of comparison in social - cultural anthropology (F. Eggan, O. Lewis, G.P Murdock , J.W.M Whiting and Gopala Sarana)

Unit – IV

a. Analysis of data: qualitative and quantitative methods
b. Coding and indexing
c. Contextual analysis
d. Computer applications in data analysis
e. Writing anthropological report

Recommended Readings

1. Bernard, H.R. 1998 - Research Methods in Cultural Anthropology, New bary Park: Sage Publication.
2. Fischer, M. 1977 - Applications in Computing for Social Anthropology, London: Routledge and Kagan Paul.
3. Madrigal, L. 1998 - Statistics for Anthropology, Cambridge: Cambridge University Press.
4. Pelto. P. J and G.H Pelto 1979 - Anthropological Research. N.Y: Harper and Row
5. Sarana, G 1975 - The Methodology of Anthropological Comparisons. Tucson: The University of Arizona Press.

COURSE II: APPLIED ANTHROPOLOGY

Programme outcome

The term "Applied Anthropology" emphasizes the practical application of anthropology"s Theories and methods to the needs of communities, organizations and institutions to solve real life problems. This course explores applied anthropology as the fifth subfield of anthropology, but also as an aspiration, necessity and reality for most contemporary anthropologists. Although in a sense, anthropology has been an applied discipline since its inception, anthropologists interested in influencing real world challenges have found the need to differentiate applied anthropology from other ways of practicing anthropology and, in their effort, they have not only created professional organizations, journals and training programs, but they have redefined the way we think about anthropology and its place in the world. Through an examination of what is applied anthropology and why we talk about it (and how it relates to practicing, engaged, public, community-based, participatory, activist anthropologies) we will have an opportunity to see ourselves as professionals in a process of constantly developing our ability to engage with our world.

Course outcomes

On successful completion of this programme, each student will be able to:

- Utility of anthropological knowledge in different fields and situations.
- Enable to dimension of applied socio cultural anthropology and major areas of application.
- It makes provisions for developing skill to practically administer/execute projects beneficial to the society, making use of available technology and human resources.
- An emphasis is laid on action-oriented programmes to equip the students with the practical work and requisite knowledge.
- Contribute meaningfully to the welfare and development of the society and on the other to earn their livelihood through their own expertise and skill.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar Presentation, assignment writing and tests.

COURSE CONTENT

Unit – I

Introduction

a. Differences between basic and applied research.
b. Meaning and scope of Applied social-cultural anthropology.
c. Development of Applied social - cultural anthropology.
d. The issue of ethics in applied research.

Unit – II

Dimensions of Applied social - cultural anthropology:

a. Interventions in Applied anthropology: Action anthropology and advocacy anthropology.

b. Interventions in Applied anthropology: Development anthropology.

c. Policy research in Applied anthropology: policy analysis, evaluation studies and impact assessment.

Unit – III

Major areas of application in Applied social - cultural anthropology

a. Health care

b. Educational development

c. Administration and welfare

d. Agricultural development

e. Industrial and technological development

f. Resettlement and rehabilitation of displaced populations

Unit – IV

a. Meaning and scope of Applied biological anthropology; development of Applied biological anthropology.

c. Anthropometry in relation to designing of furniture for school children and armed forces personnel; designing of defence equipment, household gadgets etc.

d. Nutritional anthropometry.

e. Kin anthropometry in relation to sports and physical fitness.

f. Dental anthropology: dental eruption and pathology, odontology and odontometry.

g. Clinical anthropology: Dermatoglyphics; Bio-medical anthropology, (Anthropological approaches to the study of diseases like goiter, sickle cell anaemia, G6PD deficiency, abnormal haemoglobins, thalassemia, colour blindness and diabetes).

h. Forensic anthropology: Personal identification; determination of age, sex and stature from human skeletal materials; application of serology and Dermatoglyphics in crime investigation and disputed paternity.

Recommended Readings

1. Chambers, E. 1985 - Applied Anthropology. Englewoodcliffs, N.J Prentice – Hall.
2. Foster, G.M. 1969 - Applied Anthropology. Baston: Little Brown and Co.
3. Foster, G.M. 1962 - Traditional Cultures and the Impact of Technological Change. N.Y: Harper and Row.

4. Leacock, E.et.al 1974 - Training programs for new opportunities in Applied Anthropology. Washington, D.C: American Anthropological Association.
5. Mair, Lucy 1957 - Studies in Applied Anthropology, London: London University Press.
6. Spicer, E.H. 1952 - Human Problems in Technological Change. New York: Russel Sage.
7. Cocharne, G 1971 - Development Anthropology. N.Y, Oxford University Press.
8. Madan, T. N. 1983 - Culture and Development. Delhi, Oxford University Press.
9. Clifton, J.A (ed) 1970 - Applied Anthropology. Boston: Hughton Miffin co.
10. Mathur, H.M 1996 - Anthropology and Development in Traditional Societies. New Delhi: Vikas Publishers.

COURSE - III: PRACTICALS STUDIES IN BIOLOGICAL, SOCIAL-CULTURAL AND ARCHAEOLOGICAL ANTHROPOLOGY

Programme outcome

This practical course aims to strengthen the confidence of students to employ appropriate instruments and techniques required for various measurements and observations. Correct description and identification of osseous materials, their landmarks, and measurements would help the students while pursuing human osteology and somatoscopy. Similarly, exercises on archaeological materials would provide a better confidence among them to experiment with various techniques. This course would further help them to develop a comparative and holistic approach while dealing with material artifacts from the museum, rural and tribal, and excavation sites. Laboratory procedures in blood grouping and dermatoglyphics would give further confidence in dealing with all the applied dimensions they possess. Also give knowledge on Identification, drawing and description of the house and village types in different ecological settings and cultural zones in India and other continents.

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand the gross anatomy of the human skeleton.
- Acquire knowledge of about somatoscopy
- Carrying out research in the field of human growth and development, forensic science and skeletal biology.
- Understand various techniques used in the collection, preparation, identification, illustration, moulding and casting and photography of fossil material.
- Identify various stone tools and types.
- Use the Equipments and techniques for collection, washing & screening, field cataloguing, transportation, etc. of fossils.

- Get practical knowledge of Socio cultural Anthropology.

Pedagogy

- Course activities consist of lectures, hands on demonstration, student presentation, seminar Presentation, assignment writing and tests.

COURSE CONTENT

PART - I: BIOLOGICAL ANTHROPOLOGY

Unit – I

Human osteology: Study of salient features and identification of the major bones of human skeleton. Age and sex determination from skull and pelvis.

Somatometry: The following somatometric measurements should be taken by a repetitive method on at least ten individuals, besides calculating indices involved from the measurements:

1. Maximum head length
2. Maximum head breadth
3. Minimum frontal breadth
4. Maximum Bizygomatic breadth
5. Bigonial breadth
6. Nasal height
7. Nasal length
8. Nasal breadth
9. Nasal depth
10. Physiognomic facial height
11. Physiognomic upper facial height
12. Head circumference
13. Morphological facial height
14. Morphological upper facial height
15. Height vertex (stature)
16. Sitting height
17. Body weight
18. Biacromial breadth
19. Chest breadth
20. Chest circumference
21. Skin fold thickness at triceps

22. Calf circumference
23. Upper arm circumference
24. Biceps and
25. Sub-Scapular

Unit – II

Somatoscopy: The following somatoscopic observation should be recorded at least on 10 individuals:

- Skin colour (upper arm, cheeks and forehead)
- Eye (opening axis, folds and Irish colour)
- Hair (colour, form, texture and quantity)
- Nose (nasal root, bridge and wings)
- Lips (thin, medium, large, everted)
- Ear (type of ear lobe, darwin"s tubercle, hypertrichosis)
- Prognathism (alveolar and facial)
- Physique (size and shape)
- Hand clasping, arm folding, handedness, leg folding
- Tongue rolling, tongue folding, tongue curling, tongue pigmentation
- Middle phalangeal hair, digital formula, toe formula
- Dental occlusion types (normal, overbite, under bite) and its anthropological importance; ABO and RH - Blood groups systems ; PTC (Phenylthio carbonate)

PART II: ARCHAEOLOGICAL ANTHROPOLOGY

Unit - III

Identification, drawing and description of representative artifacts of the Paleolithic, Mesolithic, Neolithic and Post-Neolithic periods.

Identification of rocks most commonly used as raw materials in the manufacture of artifacts of different periods; Demonstration of geological stratification.

PART III: SOCIAL – CULTURAL ANTHROPOLOGY

Unit - IV

Identification, drawing and description of house and village types in different ecological settings and cultural zones in India and other continents.

Identification, drawing and description of representative material culture used in economic activities (hunting, gathering, fishing, agriculture etc). Ritual activities, sites of passage etc; Dress and ornaments used on various occasions have to be drawn and described;

visit to anthropological museums. Preparation of genealogical charts on at least two families, taking into account at least three generations.

Recommended Readings

1. Agarwal, D. P. 1980 - The Archaeology of India, London: Curzon Press.
2. Allchin, B. & Allchin, R. 1982 - The Rise of Civilization in India and Pakistan: Cambridge: Cambridge University Press.
3. Bordes, F, 1965 - The Old Stone Age: London Weidenfeld and Nicholson.
4. Campbell, B.G. 1982 - Humankind Emerging. Boston: Little Brow & Co.
5. Clark, Grahamme, 1976 - World Prehistory: A New perspective. Cambridge: Cambridge University Press.
6. Clark, Grahamme, 1974 - Archaeology. and Society. N.Y:
7. Clark, and C.S. Piggot, 1969 - Prehistoric Societies, Middlesex: Peguin Books
8. Frazer, 1963 - The Anatomy of the Human Skeleton, London: Blackwell Scientific Company.
9. Gray, Henry, 1962 - Gray"s Anatomy, Longmanah nd Galsgow.
10. Hardlicke, Alex, 1957 - Practical Anthropometry (ed.), Philadelphia: T.D. Steward, Wister Institute
11. Hole, F. and Heizer, R.F. 1973 - Introduction to Prehistoric Archaeology. New York: Holt Rinehart and Winston.
12. Hooton, E.A. 1958 - Up from the Ape. New York: The Mac Millian Company,
13. Montagu, M.F. 1960 - Anthropometry. Illinois: Charles C. Thomas
14. Murdock, G.P. et al. - Outlines of Cultural Materials. New Haven: HRAF Press.
15. Okhely, K.P. 1959 - Man the Tool Maker, London: British Museum
16. Royal Anthropological Institute of Great Britain and Ireland. Notes and Queries in Anthropology.
17. Sankalia, H.D. 1975 - Prehistory of India, New Delhi: Mushiram Manoharlal.
18. Singh, I.P. and Bhasin M.K. 1989 - Anthropometry. Delhi: Kamla Raj Enterprises Wheeler, M. - Early India and Pakistan.

SOFTCORE

COURSE – IV ANTHROPOLOGICAL THEORIES –

II Programme outcome

Anthropology has remained preoccupied with evolution, diffusion and structural functional approach. A New theoretical constructs and methods such as Marxian Anthropology, psychoanalytical approach, Dialogical Anthropology, interpretative Anthropology, cognitive Anthropology, post-modernist approaches and concepts like ethnicity are now being discussed in contemporary anthropology. In Anthropology there is

discussion about methods, paradigms and models in addition to formulation and empirical verification of hypothesis to be field tested. In this course, concepts and theoretical contribution of an Anthropologist, and students are to be understood in terms of contributions of authors and scholars.

Course outcomes

On successful completion of this programme, each student will be able to:

- Critically assess theoretical contributions of Anthropologists
- Understand the anthropological theory of different schools.
- Understand new theoretical constructs and methods such as Marxian Anthropology, psychoanalytical approach, Dialogical Anthropology, interpretative Anthropology, cognitive Anthropology, post-modernist approaches and concepts.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar Presentation, assignment writing and tests.

COURSE CONTENT

Unit – I

a. Action – centered processional theories of the British school.

b. Transactional Theories of Dutch School

Unit – II

a. Inter actional theories of Paul Bohannan and E.E. Evans- Pritchard

b. Symbolic theories of American and British schools.

Unit – III

a. Cognitive theories of culture

b. The logic of explanation in anthropology

Unit – IV

a. Explanation: the philosophies perspective

b. The logic of explanation in Anthropology

Recommended Readings

1. Bloch, M (1975) Marxist analysis in Anthropology. London: Malaby
2. Bloch, M (1983) Marxism and Anthropology. Oxford: Clarendon Press
3. Jha, M (1994) An Introduction to Anthropological Thought. New Delhi, Vikas Publishers.

4. Kuper, A (1996 (1973)) Anthropologists and anthropology. London: Routledge and Kegan Paul
5. Barnard, A (2000) History and Theory in Anthropology. Cambridge: Cambridge University Press
6. Layton , R (1997) An Introduction to Theory in Anthropology. Cambridge: University Press.
7. Upadhyaya, V.S and G. Pandey (1997) History of Anthropological Thought. New Delhi: Concept publishers.

COURSE – V: ETHNO MEDICINE

Programme outcome

This course provides an overview of Meaning and scope of ethno-medicine; Development of Ethno-medicine; Ethno-medicine studies: Ethno-botany and Ethno biology, Ethno-physiology, Ethno-anatomy; Definition of disease, fitness, Health and Sickness; Classification of disease. And also student gets knowledge on human body as a natural, social, cosmological, political and spiritual symbol in the context of ritual healing and ethno medical pathway.

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand the basic concepts in ethno medicine and applied medical anthropology.
- Familiar with the socio-cultural dimensions of health and illness.
- Understand a classic example of co-existence of several systems of medicine-medical pluralism.
- Expose to the varied realm of religio-medical practitioners India and worldwide.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar Presentation, assignment writing and tests.

COURSE CONTENT

Unit – I

Definition and concept of ethno medicine: Definitions of disease, illness, health and sickness Disease classification concepts. Natural and supernatural pathogenic agents. Illness or etiological ideology. People"s perception of ethno physiology and ethno anatomy

Unit II – II

Ethno-nutritional concepts in relation to preventive, promotive and curative health and morbidity. Perception of body image, including body constitution, composition, elements

that contribute to the survival of body and soul. Human body as a natural, social, cosmological, political and spiritual symbol in the context of ritual healing.

a. Mother and child health care beliefs and practices
b. Nature and role of traditional medical practitioners
c. Different types of ethno medical specialists, their stats and medical functions
d. Apprenticeship pattern
e. Medical knowledge of practitioners
f. Medicinal plants administered for various diseases
g. Animal derivatives administered for various diseases
h. Medicines extracted from minerals
i. Other therapies employed

Unit – III

Healing rituals: rituals of inviting healing forces for diagnosis and treatment, collecting, preparing and administrating medicines

Therapeutic rituals:

1. Rituals of appeasing spirits
2. Rituals of compromise
3. Rituals of warding off pathogenic agents/evil effect
4. Rituals of killing pathogenic agents
5. Rituals of purification
6. Rituals of prevention
7. Thanks giving rituals

Unit – IV

Ethno medical pathway - The process or stages through which a patient passes to get him cured. Cultural factors that influence decision to choose and change a therapy Ethno medical Practical and Field Work

- A trip to a tribal area, a nomadic camp or a caste village to study people"s ethno medical beliefs and practices
- preparing herbarium sheets of medicinal plants used by people and prescribed by ethno medical specialists
- Preparing five illness episodes
- Preparing five case histories of medical practitioners
- Body mapping session with the target community in order to understand their concept of anatomy, physiology and body image.

Recommended Readings

1. Caulie William , 1955 - Applied Anthropology in Medicine, edited by Kroeber A.R. Anthropology Today
2. Foster George, 1983 - An Introduction to Ethno medicine edited by Bannerman and others, Traditional Medicine and Health Coverage, WHO, Geneva
3. Hughes Charles 1968 – Ethno medicine, Encyclopedia of Social sciences, Vol. X, USA
4. Kurian J.C and Bhanu B.V. 1980 – Ethno medicine: A Study of Nomadic Vaidus of Maharashtra, Eastern anthropologist, Vol. 33, No.1.pp 71- 78, Luck now
5. Turner Victor, 1967 - The Forest of Symbols, Cornell University Press, USA

OPEN ELECTIVE

COURSE – VI: FOUNDATIONS IN ANTHROPOLOGY

Programme outcome

This course covers the basic concepts in Social, Cultural, Physical, Biological, Archaeological and Linguistic Anthropology. The course aims to help the students to understand the holistic perspectives and integrative approaches of anthropology, not only amongst its four branches but also across a wide variety of other disciplines.

Course outcomes

On successful completion of this programme, each student will be able to:

- Trace the meaning, scope and history of anthropology
- Identify the relationship between and amongst its branches
- Appreciate the interdisciplinary and Trans disciplinary nature of anthropology.
- Examine and comprehend the basic concepts contained in: Biological Anthropology, Social- Cultural Anthropology, Archaeological Anthropology and Linguistic Anthropology

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit - I

Fundamentals of Anthropology

a. Meaning and scope of anthropology

b. History of anthropology

c. Major branches of anthropology

d. Relationship between Anthropology & Natural Sciences such as Biology, Geology, Geography.

e. Relationship between anthropology and social sciences and humanities, such as history, economics, sociology, political science, education. Language

Unit – II

Fundamentals in Biological Anthropology

a. Nature and scope of biological anthropology

b. Human evolution

c. Human variation

d. Human genetics

e. Human growth and development

Unit - III

Fundamentals in Social Cultural Anthropology

a. Nature and scope of social cultural anthropology

b. Evolution of culture and society

c. Typologies of human society and culture: board, tribe, peasantry and civilization.

d. Basic human Institutions: Family, marriage, kingship, economy, politics, religion.

e. Social and cultural change

Unit- IV

Fundamentals in Archaeological and Linguistic Anthropology

a. Nature and scope of archaeological and linguistic Anthropology

b. Prehistoric cultures: Paleolithic, Mesolithic and Neolithic

c. Chronology, technology and tool typology of prehistoric cultures

d. Evolutions of Language

e. Speech, language and dialect

Recommended Readings

1. Ember. C. R. and M. Ember Anthropology. New Delhi: Prentice-Hall of India Pvt. Ltd. 2002

2. Evans- Pritchard, E.E. Social Anthropology, New Delhi: Universal Book Stall 1990

3. Fox, Robin Kinship and Marriage. Penguin book 1967
4. Haviland, W.A. Cultural Anthropology. London: Harcourt and Brace 1993
5. Scupin, R and C. R. Decorse Anthropology. New Delhi: Prentice-Hall of India Pvt. Ltd. 2005
6. Srivastav. A.R.N. Essentials of Cultural Anthropology. New Delhi: Prentice-Hall of India Pvt. Ltd. 2005
7. Das B.M. Outlines of Physical Anthropology. Alahabad: Kitab Mahal 2002
8. Battacharya, D.K. An Outline of Indian Prehistory. Delhi: Palaka Prakashan 1998
9. Jurmain, R. and H. Nelson Essentials of Physical Anthropology. New York: Wardworth Kilgore 1998
10. Rami Reddy. V. Physical Anthropology, Evolution and Genetics: Tirupati V. Indira Publisher 1992
11. Shukla, B.R.K. and S. Rastogi Physical Anthropology and Human Genetics: Delhi: Palaka Prakahana 1998
12. Rami Reddy, V. Elements of Prehistory, New Del;hi: Mittal Publishers 1987
13. Sankalia H.D. Stone Age Tools. Pune Deccan College. 1964

THIRD SEMESTER

HARD CORE

COURSE – I: HUMAN EVOLUTION AND HUMAN BIOLOGY

Course outcomes

On successful completion of this programme, each student will be able to:

- Explain the evolution-terms and concepts.
- Understand fossil evidences of apes and human origins and dispersal
- Understand the evolution of primates
- Understand the Primate Ethnology, Human variation, respiratory functions; Ergonomics.
- Understand about Human Adaptation and Ageing in Human beings.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Evolution-terms and concepts: species, speciation, irreversibility, parallelism and convergence, adaptive radiation, theory of orthogenesis, extinction.

The evolution of primates with reference to skull, dentition, pelvis, limbs and brain; erect posture and bipedalism in man.

Unit II:

Fossil evidences of apes and human origins and dispersal: Hominoid diversity, Hominoid origin; Gibbon divergence, Orangutan divergence; African ape and human divergence; origin of genus Homo and the emergence of culture; Evolution of Homo erectus; Evolution of Homo sapiens; Evolutionary future of mankind.

Unit III:

Primate Ethnology: Social behavior among non-human primates Baboon, Chimpanzee and Gorilla); cultural processes and the evolution of human behaviour.

Human variation: Physiological variables: Blood pressure, heart rate, pulse rate, body temperature, respiratory functions; sports anthropometry: body size and shape and performance in games and sports.

Ergonomics: Man - machine relationship and work performance; dermatoglyphics: variation in finger and palmar dermatologyphic characters among human population groups.

Unit IV:

Human Adaptation: Adaptation to heat, cold, high altitude and nutritional adaptation. Ageing in Human beings: Concept of ageing, biological aspects of ageing, changes in biological characters due to ageing; inheritance of longevity, conditions associated with longevity.

Recommended Readings:

1. Ali Mohammad, 1977 - Food and Nutrition in India: New Delhi, K.B. Pub.
2. Baker, P.T. and J.S. Weiner, 1967 - Biology of Human Adaptability
3. Baker, Charles S. (Ed), 1969 - Physical Functioning of Older People, towards and Better

Understanding of the ageing
4. Borman, K.E. E.D. Barbara and P.G. Lincoln, 1977 - Blood Group Serology: Theory, Techniques, Practical Applications. IV Ed., London: Churchill: Livingstone
5. Bridges, B.C., 1942 - Practical Fingerprinting, N.Y.: Funk & Wagnalis Co.
6. Buettner-Janusch, John, 1969 - Origins of Man: Physical Anthropology. New Delhi : Wiley Eastern P. ltd.
7. Chatterjee, S.K. 1967 - Finger, Palm and Sole prints-Calcutta: 17, Lake Avenue
8. Chiarelli, A.B. 1973 - Evolution of the Primates: Introduction to the Biology of Man. London: Academic Press
9. Clark, Tibbits & Donabue Wilma (Ed), 1960 - Ageing in Today"s Society, New Jersey: Prentice Hall
10. Confort, A, 1956 - The Biology of Senescene, N.Y. Rinehart
11. Cummins, H & Midlo, 1961 - Finger Prints, Palms & Soles: An Introduction to Dermatologyphics. N.Y.: Dover Publication
12. Curtis, H.J., 1963 - Biological Mechanism Underlaying the Ageing Process, Science, 191: 686-694. Desmond Morris (Ed) Primate Ethology
13. De vore, irvin (Ed), 1965 - Primate Behaviour: Field Studies of Monkeys and Apes. N.Y. Holt, Rinehart & Winston

COURSE – II: HUMAN GENETICS

Course outcomes

On successful completion of this programme, each student will be able to:

- Describe the mechanisms that underpin the inheritance of traits in human populations
- Understand the role of genetic factors in health and disease
- Communicate genetic information in an explicable manner.
- Understand the relevance of genetic databases in human genetic research

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

The science of human heredity: History and development of human genetics, major branches of human genetics and its relationship with other branches of science and medicine; normal chromosomal constitution, sex determination, genes, genetic code and gene-enzyme hypothesis. Inborn errors of metabolism: Alkaptonuria, phenylketonuria, galactosemia and albinism.

Unit II:

Patterns of Inheritance: Autosomal dominant and recessive types of inheritance: sexlinked inheritance, sex limited inheritance, sex influenced inheritance, multiple allelic inheritance, polygenic inheritance, penetrance and expressivity, pleiotropy, phenocopy.

Methods for study of Genetic principles in Man: Family method, pedigree method, sib-pair method, twin study, foster child, co-twin method, cytogeneitic method, biochemical methods, immunological method, DNA technology and recombinant technologies – biology of twinning, diagnosis of zygosity, heredity and Environment.

Unit III:

Chromosomal Abnormalities: Numerical abnormalities: Antosomal – Down's syndrome (Trisomy-21), Edward''s syndrome (Trisomy-18), Patau''s syndrome (Trisomy-13). Sex chromosomal, abnormalities – Klinefelter's syndrome and Turner''s syndrome, Structural abnormalities: Deletions and duplications, translocation, isochromosomes, ring chromosomes, mosaicism. Hardy Weinberg law and its application in human population genetics. Changes in gene frequency mutation, selection genetic, drift, gene flow and migration-measures of genetic/ biological distance employed to study variation among human populations.

Unit IV:

Blood group polymorphisms: ABO, RH and MNSs systems. Human Genetics and Human Welfare: Genetic screening, genetic counseling (Single gene disease, polygenic diseases and paternity exclusion, the potential effect of genetic (counselling), Genetic engineering, eugenics, euthenics, genetic hazards of radiation.

Recommended Readings:

1. Beckman, I, 1966 - Monographs in Human Genetics Vol-I: Isozyme Variations in Man Basel (Switzerland): S. Kargar.
2. Buettner – Janusch, John, 1966 - Origins of Man: Physical Anthropology. New Delhi: Wiley Eastern Private Ltd.
3. Giblett, E.R. 1969 - Genetics Markers in Human blood, Oxford: Blackwell Scientific publications.
4. Harris, H. 1975 - The Principles of Human Bio Genetics, Amsterdam: North Holland Pub.co., (2nd Edn).
5. Harrison, G.A., J.S. Weiner, J.M. Janner & N.A. Barnicat, 1964 - Human Biology: An introduction to Human Evolution, Variation and Growth, Oxford: Oxford Uni. Press
6. McKusic, Victor A. 1978 - Human Genetics, New Delhi: Prentice Hall in India P. Ltd.
7. Mourant, A.C., K.C. Kope and K. Domniewska S. Sobczak, 1976 - The Distribution of Human Blood Groups and Other Polymorphisms, London: Oxford Uni. Press.
8. Penrose, L.S. 1959 -Outline of Human Genetics, London: heinemann.
9. Race, R.R. and R. Sanger, 1968 - Blood Groups in Man. Oxford Blackwell Scientific 10. Pub. Roberts, Eraser IA, 1974 - An Introduction to Medical Genetics, London: Oxford University Press (E.L.S.S. Ed.)
10. Sutton, Eldon H, 1965 - An introduction to Human Genetics, NY: Holt, Rineha Winston.
11. Eveleth, PB & J>N. Tamner, 1976 - World wide variation in Human Growth: London: CUP 1976
12. Giblett, N.R. 1969 - Genetics Markers in Human Blood Oxford: Blackwell Scientific pubs.
13. Jelliffe, D.B. 1966 - The assessment of nutrition status of community WHO Monography Series No.53, Geneve, WHO Monograph series.
14. Lasker, G., 1973 - Physical Anthropology. NY: Holt, Rinchart & Winston Maxine et al. Human Nutrition; Principles & Applications in India. Nassar, E.L. Forensic Anthropology
15. Petroy RV, 1987 - Me or Not me: Immunological Mobiles, Moscow: Mir Pub
16. Rami Reddy V, 1992 - Physical Anthropology.evolution & Genetics of Man. Ed. V. India, Tirupati.
17. Soodan, Kirpal Singh, 1975 - Ageing in India. Calcutta: Minerva Associates (Pub.) Pvt. Ltd.
18. Spender, Mariar G, 1975 - Understanding Ageing: A Multidisciplinary Approach: NY: Appleton-Century Crafts (publishing Dvn. Of Prentice Hall Inc.)
19. Wilson Eva D. 1968 - Kalherine H. Fisher and Mary E. Euqua : Principles of Nutrition, New Delhi: Wiley Eastern P. Ltd., (2nd Ed.) 1968.

COURSE – III: PRACTICALS -I

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand the gross anatomy of the human skeleton.
- Work on human skeleton that is essential in the pursuit of careers and research in human evolution, human growth and development, primatology and applied Para- medical sciences.
- Understand the scientific methods and techniques for taking various measurements and observations of the living man.
- Carrying out research in the field of forensic science and skeletal biology.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Human Osteology; Detailed study of Human skeleton with special reference to salient anatomical characteristics of long bones, pelvis and vertebrae.

Unit II:

Craniometry: the drawing of 5 views of Human skull and the study of landmarks, recording by repetitive of the following below mentioned measurements (direct = d and indirect = I)

Unit III:

The calculation of indices involved at least on 5 human skulls.

Nasal profile angle (d+I)
Maximum Cranial Length (d+I)
Maximum Cranial Breadth (d)
Maximum Frontal Breadth (d)
Minimum Frontal Breadth (d)
Bizogomatic Breadth (d)
Bimaxillary Breadth (d)
Morphological Facial Height (d)
Morphological Superior Facial height (d)
Nasal Height (d)
Nasal Breadth (d)
Palatal Length (d)
Palatal Breadth (d)
Bicondylar Breadth of Ramus(d)
Height of Ramus (9d)
Maximum Breadth of Ramus (d)
Basion-Bregma Length (d+I)
Nasian-Inion Line (d+I)
Nasion-Lamda Line (d+I)

Unit IV:

Osteometry: The measurements like length, breadth, diameter, circumference/girth, thickness and angles specified on the bones should be taken by the students.

The specified indices should be calculated from the measurements taken on the bones.

Recommended Readings:

1. Frazer, J.I. 1963 - The Anatomy of Human skeleton, Oxford: Blackwell Scientific Publication Gray, 1962 – Gray's Anatomy Glasgow Longmans
2. Hardlicka Alex, 1957 - Practical Anthropometry (Ed) T. D. Steward Philadelphia: Wister Instt.
3. Montagu, Ashley, M.F. 1960 - Anthropometry: Illinois: Charles C. Thomas Singh, I.P. and Bhasi, M.K. Anthropometry: Delhi, Bharathi Bhavan

SOFT CORE

COURSE – IV: FORENSIC ANTHROPOLOGY

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand the anthropological perspectives of crime and crime detection.
- Establishing personal identity in the core theme of forensic anthropology, besides probing the causes and circumstances of death which would be dealt there.
- Understand methods, techniques and procedures essentially required for personal identification.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Criminology and Anthropology of crimes. Introduction, nature and it historical development: definition of crimes, its theories and treatment, aims and techniques of anthropology of crimes including heredity, environment and criminal behaviour.

Unit II:

Detection and biological study of semen, blood, saliva urine, vomit, hair, tissues, vegetable matter (starches and pollen) and fibers; study of human skeletal remains. personal identification of the living and the dead.

Unit III:

Documents and finger print examination; scope, development and methods of investigation of frauds, ensures and forgeries of notes and coins.

Unit IV:

Methods of detecting and photographing finger prints, tyre marks, etc. role of photography and its application.

Firearms and explosives, physical evidence. Identification of narcotics.

Recommended Readings:

1. Bridges: practical finger printing
2. Chatterjee, Finger, palm and sole prints
3. Cherrill, F.R. The finger print systems and Scotland
4. Halleck-Semens Psychiatric aspects of criminals
5. Kind, Stuart and Machael, Science against crime.
6. Kirk, P.L. 1974, Crime investigation.
7. Krogman, W.M. and Isean, M.Y. 1986: The human skeleton in Forensic medicine, 2nd (Ed)
8. Lundguist, F. and Curry, A.S.: Methods of Forensic science (Vol. 1-4)
9. Ment: Modern Trends in Forensic Medicine
10. Modi: Modi's Book of Medical Prudence and Toxicology
11. Nicoles: Methods in Forensic Science
12. Rama Rao: Forensic Medicine
13. Rogers, S.L. Personal Identification from human remains
14. Saferstein : Text Book of Criminalities
15. Steward, T.D. Forensic Anthropology
16. Symans, J. Crime and Detection
17. Turner : Forensic Science and Laboratory Techniques

COURSE – V: HUMAN GROWTH AND NUTRITION

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand the anthropological theory and methods designed for food and nutrition science.
- It covers anthropology's four-field modes of inquiry, crosscutting theoretical approaches and thematic interest groups, their respective institutions and intellectual concerns.
- Understand the anthropological concepts and methods to cutting-edge food and nutrition issues.
- Evaluate various Government Programmes related to nutrition.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Definition and concept, growth, maturation and development, physical activity and performance; phases of growth; prenatal and postnatal (infancy, childhood, juvenile, adolescence, adult hood, Senility). methods of studying growth: longitudinal, cross sectional, mixed longitudinal studies; human growth curves; genetics of growth; heredity and environment; concepts of age, chronological, skeletal, dental, morphological and based on body size: factors including endocrine controlling growth and development (genetic, environmental, hormonal, nutritional and socio-economic);

Unit II:

Nutrition: Basic terms and concepts: Nutrition, Nutrients, malnutrition, under nutrition, over nutrition, obesity; types, function and users of nutrients; roles of vitamins and minerals in human nutrition, deficiency, nicotinic acid deficiency, Vitamin C deficiency, Vitamin D deficiency, nutritional requirements and recommended allowances from infancy to old age.

Various Governmental Programmes related to nutrition. ANP; ICDS, SNP: Mid day meal programmes; Vitamin A', prophylaxis programme, Nutritional anaemia, prophylaxis programme, goitre control programme.

Unit III:

Problems related to growth and nutrition, groups at risk; Infants, pregnant and lactating mothers, birth weight variations, abnormal growth; Health and epidemiological aspects

Epidemiology: Definition, scope approaches and uses. analytical epidemiology – case control study and cohort study; screening for disease; general concepts, immunization, malnutrition, morbidity and mortality; prenatal, neonatal causes, IMR role of maternal education; infections: diarrhoea dysentery, dehydration, amoebiasis, respiratory infection, pneumonia, whooping cough, measles, chicken pox, worm infection, skin infection, fever, T.B. AIDS; Health and nutrition education at household and community levels.

Unit IV:

Determinants of Nutrition levels: Anthropometric, clinical and bio-chemical indicators of nutrition; health, diet and nutrition; socio-economic assessment, evaluation, monitoring and surveillance, concepts of standard and reference values of growth and nutritional status.

Recommended Readings:

1. Bogin, B, 1988. Patern of Human Growth
2. Eleveth and Tanner, 1978: Growth and Development in World Wide Human Population
3. Falkner, F. and Tanner, J.M. 1978: Human growth (three volumes) Plenum Garm, S.M. Nutritional Anthropology.
4. Garm, S.M. and Snair, Z. Methods for Research in Human growth
5. Gopala das, T. and seshadri, S. 1984. Nutrition Monitoring and Assessment, New Delhi, Oxford University Press
6. Harrison, G.A., Weiner, J.S., Tanner, J.M. and Bashicot, N.A. 1984. Human Biology, 3rd edition London: Oxford University Press
7. Jelliffer, D.B. 1966. The Assessment of the Nutritional Status of the community: WHO Geneva.
8. Jelliffer, D.B. 1986: Community Nutritional Assessment with Special Reference to less Technically Developed Countries. Oxford University Press.
9. Marshall, M.A. 1977: Human Growth and Its Disorders. London: Academic Press.
10. Park and Park, 1994. Text Book of Preventive and Social Medicine, Jabalpur: Messers Banarsides Bhanot Publisers. Roy and Roy Hunger and Physique.
11. Shanti, Gosh, 1977, Nutrition and Child Care A Practical Guide, New Delhi: Jay Pee Brothers, Medical Publishers P. Ltd.
12. Sinclair, David: Human Growth After Division: Oxoford University Press
13. Smith, D.W. 1977. Growth and Its Disorders, Sanders
14. Stanley, J. 1962. The Cambridge Encyclopedia of Human Growth and Other Development Cambridge University Press.
15. Tanner, J.M. 1972. Growth at Adolescence, 2nd edition, Oxford: Black Well Scientific Publication.
16. Tanner, J.M. 1978. Foetus into Man: Physical Growth From Conception to Maturity, London: Open Books
17. Williams, S.R. 1974: Essentials of Nutrition and Diet Therapy. USA: the C.V. Mosby Co.
18. Weiner and Lourie, 1969: Human Biology: A Guide to Field Methods. IBP handbook No.9,

Oxford and Edinbargh: Blackwell Scientific publication

OPEN ELECTIVE

COURSE – VI: GENETIC COUNSELLING

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand the anthropological dimensions of genetic counselling
- Learn the basics of human genetics and the methods to explore the nature of inheritance of normal and abnormal traits
- Comprehend the principles of medical genetics and to assess the mode of inheritance of genetic diseases
- Assess the implications of consanguineous marriages and the inheritance of such diseases as well as identify the individuals at risk
- Adopt appropriate strategies in genetic counselling for individuals, families and communities learn the laboratory and field methods to identify the genetic diseases.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Fundamentals of Anthropology, human genetics, medical genetics marriage rules - exogamy, endogamy, consanguinity and inbreeding their implications on individuals, families and the community health care, normal and abnormal traits: genetical and non genetical ; genetic etiology ; environmental effect tracing of family history for these traits (pedigree analysis)

Unit II:

Rules of inheritance of the traits: Autosomal, recessive and sex linked anthropological significance of cytogenetically studies. Relationship of cytogenetically study, probability of transmission of trait, disease, diagnosis for biochemical disorders: metabolic disorders

Unit III:

Normal and abnormal chromosomes. Chromosomal aberrations (structural and numerical) and its consequences in individuals and populations. Different techniques of preparation and identification of chromosomes. Chromosome nomenclatures and chromosome mapping and chromosomal syndromes. Diagnostic approach and its importance

Unit IV:

Prenatal detection and its importance: cytogenetic of fetal wastage, repeated abortions, primary and secondary amenorrhoea. Haemoglobinopathies and allied disorders in India: their genetic importance in Health care, association of genetic makers (Blood groups, HLA antigens etc) with diseases, medical genetic problems among tribals.

Genetic counseling: introduction-genetical, medical and social concept Essential qualities of a genetic counsellor. Ethical aspects of genetic counseling.

Recommended Readings:

1. Anders J.M., Moores E. C Emancuel. R: Chromosome Preparation From Leucocytes Culture. A simplified method for collecting samples by post, J Med. Genetics, 3, 74,
2. Arakaki D.T, Sparkers R.: Micro technique for culturing leucocytes from whole blood. Cytogenetics, 2, 57
3. Bloom A.D: Induced chromosal aberrations in man, Advances in Human Genetics, 3, 99-172, H. Harris and K. Hirschhorn, (Eds.), new York-London : Plenum Press
4. Capersson T.Zech L : Fluorescent labelling and identification of human chromosomes, Perspectives in cytogenetic, p.163-185.
5. Young I.D : Introduction in Genetic Counseling, Oxford University Press, A clearly explained and valuable guide to practical situations and to their underlying principles

FOURTH SEMESTER

HARD CORE

COURSE – I: ANTHROPOLOGICAL DEMOGRAPHY

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand basic knowledge of anthropological demography.
- Understand concepts and theories of population dynamics, to train the student in the quantitative analysis of population data from the perspective of Anthropology.
- Understand the genetic implications of demographic data.
- Understanding of various fundamental processes in a comprehensive manner.
- The student gets knowledge about reproductive health

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Nature and scope of anthropological demography, relationship with other branches. Demography theories: Malthusian, optimum, socio-cultural, biological and demographic transition.

Unit II:

Life tables and their construction. Biological consequences of family planning. Population structure – population size and composition, fertility, mortality and migration and their inter-relationships. Population models, effective population size, selection potentiality of the population. breeding, population: mating patterns, random mating, assortative mating consanguinity, and inbreeding, inbreeding co-efficient, genetic load, genetic isolates.

Unit III:

Selection: Heterozygous, differential fertility, relaxation, genetic polymorphism: concepts, balanced and transient, measures of genetic distance.

Unit IV:

Concepts of reproductive health: Conceptual frame work on reproductive health: human reproduction systems, mechanism of conception, pregnancy and fetal wastage; obstetrical problems delivery, pregnancy complications and other diseases during pregnancy.

Recommended Readings:

1. Bhende and Kanitkar, 1996: Principles of Population Studies. Himalaya Publishing House,
2. Bogue Donald, 1969: The principles of demography; Siley Publication, New York.
3. Cox, peter, 1989: Demography: Cambridge University Press, U.K.
4. Desai, P.B. 1987: Population in the Context of India's Development B.R. Publishing Corporation, Delhi.
5. Foundation for research in Health statistics, 1990: Health Monitor, Mumbai.
6. John Weeks, 1994: Population, Wordsworth Publication, California, USA

7. Pathak and Ram, 1992: Techniques of Demographic Analysis. Himalaya Publishing House, Mumbai.
8. Population Research Centre, 1995: National Family Health Survey, Mumbai
9. Sinha, U.P. 1990: Demographic Profile of Tribal population in India.
10. Spengler and Otis, 1956: Demographic Analysis, The free press, Illinois.

COURSE – II: PRACTICALS -II

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand demotoglyphics and the fingerprint pattern types, collect, analyse and classify the dermatoglyphic data
- Can understand about blood group serology, Sickle cell trait test etc.
- Take osteometric and somatometric measurements

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Dermatoglyphics: Bilateral inked fingerprints and palmar prints from at least 15 individuals should be collected and analyzed for dermatoglyphic characteristics by all the students.

Unit II:

The finger prints should be analyzed for pattern types after Galton and Henry, finger ridge counts, total finger ridge count (TFRC), absolute finger ridge count (AFRC) and pattern intensity index, occurrence of patterns in palmer dermatoglyphic zones.

Unit III:

Blood group serology: The blood samples from at least 15 individuals are to be collected and analyzed for ABO MN and Rh (anti C, c, D, E and –e) blood group systems by all the students.

Unit IV:

Sickle cell trait test and quantitative estimation of hemoglobin content present in the given samples of 15 individuals.

Besides these all the students should test at least 15 individuals for taste sensitivity to phenylthiocarbamide (PTC) solutions; secretor factor and for color blindness.

Recommended Readings:

1. Boorman, K. E. Barbara, E.D. and Lincoln, D.J. 1977. Blood Group Serology: The ory, Techniques, Practical Application, IV Edn. London: Churchill, Livingstone.
2. Cummins, H. and Middlo, C. 1961 - Finger Prints, Palms and Soles: An Introduction to Dermatoglyphics: New york: Dorcs pub.
3. Ghgosh Moulik, S.K. Basanti Rath, 2000 - Techniques in Forensic and Physical Anthropology. Mayur Pub. Bhubaneswar.
4. Giblett, E.R. 1969 Genetic Markers in Human blood: Oxford: Blackwell Scientific

Publication.
5. Harris, H. and Kolmus, H. 1949. The Measurement of Taste Sensitivity to Phenylthiocarbamide (PTC) Ann. Eugen.
6. Holt, S.B. 1968 - The Genetics of Dermal Ridges, Spring Field C.C. Thomas
7. Ishihara, S. 1970 - The Series of Plates Designed as a Test for Colour Blindness. 38 plates Edn. Tokyo Kannehara"s Shuppan Co. ltd.
8. Race, R.R. and Sanger, R. 1962 - Blood Groups in Man. Oxford Blackwell Scientific Publication.

COURSE – III: FIELD WORK AND DISSERTATION

Course outcomes

On successful completion of this programme, each student will be able to:

- The student gets practical knowledge about fieldwork.
- Understand application of Research methodology.
- Acquire practical experience in presenting the primary data and the secondary data already collected.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests, report writing, and student presentation.

COURSE CONTENT

The students should select the topic of dissertation and got it approved by the department during III Semester and submit before the end of IV Semester under supervision of their teachers. The dissertation could be either in English or Kannada. Three typed copies properly bound should be submitted to the department before the Last working day of the IV Semester.

The student is required to live for at least 30 days in a community (tribal, village or urban) for the collection of research data by using anthropological methods. The field work should be carried out during the holidays after the III semester. At the end of IV semester the students are required to submit a dissertation of about 15,000 words. The dissertation will be evaluated and viva-voce examination will be held by both internal and external examiners.

SOFT CORE

COURSE – IV: MOLECULAR ANTHROPOLOGY

Course outcomes

On successful completion of this programme, each student will be able to:

- Understand scope and development of biochemical Anthropology.
- Analyse the biomolecular evolution, chromatin and Chromosomes, gene expression.
- Enable to Basic Molecular Techniques and Molecular Physiology to Human Molecular Biology.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I: Biochemical Anthropology

Scope and development of biochemical Anthropology: Techniques in biochemical anthropology, electrophoresis, immuno electrophoresis, isoelectrofocussing, enzyme deficiencies-clinical problems- management and treatment.

Unit II: Molecular Biology, Bio chemistry and Human cyto-genetics

Biomolecular evolution
Chromatin and chromosomes, gene expression
RNA processing and
translocation Protein
structure and function Signal
transduction
Inflammatory
cytokinesis Hormones
and growth factors
Hemoglobins, angiogenins and isoactive
Mediators Cell cycle control, apoptosis and
Ageing

Unit III: Basic Molecular Techniques

Isolation of DNA and RNA, restriction endonuclease digestion of DNA, southern blotting, northern blotting, isotopic labelling of DNA probes, polymerase chain reaction.

Unit IV: Molecular Physiology to Human Molecular Biology

Genetic test systems, gene and protein analysis genetic engineering, gene mapping and gene testing, gene knockouts, transgenics and cloned animals,

Gene therapy and recombinant DNA technology, current status of human molecular biology: its applications and socio-cultural implications, mapping of human genome, genetic and fossil evidence for the origin of modern humans, African populations and the evolution of human mitochondrial DNA.

Recommended Readings:

1. Harris, H, - Human Biochemical Genetics
2. Harris and Hopkinson , - A Hand Book of Electrophoresis
3. Yunis, J.J.- (Ed) Biochemical Methods in Red Cell Genetics
4. Yanis, J.J.- Human Chromosome Methodology
5. Beutler, E. - Red Cell metabolism : A Manual of Biochemical Methods.
6. Capersson, T., Zech L., Johansson, C., Modest, E.J. Identification of human chromosomes by DNA-binding fluorescent. Agemts. Cjrp,psp,a (Berl.)30,215-277
7. Young, I.D. - Introduction in Genetic Counselling. Oxford University Ppress
8. Spahles. J.N.- Genetic Diversity and Human Behaviour

COURSE – V: ANTHROPOLOGICAL STATISTICS

Course outcomes

On successful completion of this programme, each student will be able to:

- Use of statistics in anthropological research.
- Statistical concepts of one kind or another have been employed in anthropology.
- Understand introduction to non-parametric statistic and concept of probability
- Analyze the linear correlation and regression.

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Introduction to statistics; use of statistics in anthropological research. Levels of measurement - nominal, ordinal, interval and ratio scales. Fundamental concepts of population, samples, variables, parameter and statistics. Frequency, proportions, percentages and ratios. Diagrammatical and graphical representation of data, frequency curves.

Measures of central tendenci Mean, Median and Mode, measures of dispersion range, interquartile range, semi interquartile range, 10-90 percentile range, standard deviation, standard error, variance and co- efficient of variation.

Unit II:

Concept of probability - properties and uses. Bayes theorem, normal, binomial and poission distribution. Sampling methods and sampling theory. Confidence limits, levels of significance and critical region-Type I and Type II errors. Standard error of a statistics. Students „t" test, Chi-square test, and F-test.

Unit III:

Introduction to non-parametric statistics. Wilcoxon-Mann-Whiney test, Kolomogrotv / Smirinov one sample and two sample tests. Introduction to simple analysis of variance and two way analysis of variance, Kruskal wallis one way analysis of variance. Friedman two way analysis of variance.

Unit IV:

Linear correlation and regression. Standard error of estimate. Tests of significance involving coefficients of linear correlation coefficient. Multivariate distance statistics and its use in Anthropology, Computer simulation studies – flow charts in bio – anthropological studies and studies of human evolution.

Recommended Readings:

1. Bailey, N.T.J. Statistical methods in Biology
2. Blalock, H.M. 1985 - Jr. Social statistics
3. Fisher, R.A. and Yates, F. 1953 - Statistical tables for Biological, Agricultural land Medical Research (New York)
4. Kempthrone, O, 1957 - An introduction to Genetical Statistics.
5. M.C. Arthur 1961 - Introducing Population Statistics. Oxford University Press
6. Muller, J.Schusseller, K.F. and Costner, H.L, 977 Statistical reasoning in sociology.
7. Siegel, S. and Castellon, N.J. 1983 , Jr. of Non Parametric Statistics for the Behavioural Science

8. Sunderrao, P.S.S, Jesudin, C. and Richard, J. An Introduction to Biostatistics, 1977
9. Thomas, D.H., 1991 Figuring Anthropology
10. Wayne, W. Daniel Biostatistics - A Foundation for Analysis in Health Science

OPEN ELECTIVE

PAPER – 5: SPORTS ANTHOPOLOGY

Course outcomes

On successful completion of this programme, each student will be able to:

- Comprehend the varieties of traditional sports, games and modes of recreation among the Indian communities
- Assess the biological measures in body maturity and their role in sports performance
- Evaluate body composition and classify separately as per age and sex
- Understand the physical and physiological changes brought about due to exercise
- Appreciate the group variations expressed through sports performance and endurance identify the most suitable body composition for specific sports and suggest the types of exercises they should perform to achieve excellence

Pedagogy

- Course activities consist of lectures, student presentation, group discussions, seminar presentation, assignment writing and tests.

COURSE CONTENT

Unit I:

Importance of sports in human society; Heredity and environment in body dimensions and proportions. Relationship of different types of sports efficiency and different body proportions: Ecological, ethnic and genetic variation of body shape and size in relation to sports efficiency.

Unit II:

Family environment and hereditary background of special physical abilities of sports performance; Effects of exercise and yoga on physical fitness and sports efficiency.

Unit III:

Physiological variation in relation to sports activities; nutritional status and requirements in relation o sports and exercise.

Unit IV:

Body composition, body (somato) type and physiological profile of sportsmen and sports women: diurnal and seasonal variation to body related in sports exercise physical fitness and mental alertness.

Recommended Readings:

1. Astrand and Rodhal, 1977 - Textbook of Work Physiology
2. Carter, J.E.L., Ross, W.D., W.and Aubry, S.P, 1983 - Advances in Somato type Methodology and Analysis Year book of Physical Anthropology
3. Creisie, N.A.C., Withers, R.T. and Craig, N.P., 1986 - The Statistical Analysis of Somato type data year book of Physical Anthropology.

4. Damon, A. Physiological Anthropology
5. Eiben, O. Sports Anthropology, Physique of Olympic Athletes.
6. Johnson, W.R. and E.R. Busk lask (Editors), 1974 - Medicine and Science of Exercise and Sport (Second Edition) (Harper and Row, New York)
7. Singh, S.P. and Malhotra, P. 1989 - Kinanthropometry, Patiala; Lunar publication.
8. Sodhi, H.S. 1991 - Sports Anthropomentry, patiala; Anova Publications.