

# UNIVERSITY OF PUNE

## STRUCTURE OF REVISED SYLLABUS M.A. / M.Sc. ANTHROPOLOGY Semester – III and Semester IV - 2014 – 2015.

### SEMESTER III

Dissertation - Part – I, Compulsory.

Choose any 5 courses from the remaining 9 courses.

|   |    |
|---|----|
| NAN 301: Medical Anthropology: Health, Culture and Society. | 04 |
| AN 302: Recent Trends in Anthropology.                      | 04 |
| AN 303: Developmental Anthropology.                         | 04 |
| AN 304: Social Gerontology.                                 | 04 |
| AN 305: Social Cultural Change.                             | 04 |
| AN 306: Applied Biological Anthropology.                    | 04 |
| AN 307: Population Genetics.                                | 04 |
| AN 308: Forensic Anthropology                               | 04 |
| AN 309: Population Genetics - Practical                     | 04 |
| AN 310: Dissertation – Part – I – (Compulsory Course).      | 05 |

### SEMESTER IV

Dissertation - (Part – II), Compulsory.

Choose any 5 courses from the remaining 9 courses.

|   |    |
|---|----|
| AN 401: Medical Anthropology:<br>Approaches, Public Health Policies and Programs. | 04 |
| AN 402: Complex Societies and Urban Development.                                  | 04 |
| AN 403: Tribal and Rural Development.   | 04 |
| AN 404: Gender and Development.   | 04 |
| AN 405: Anthropological Demography.   | 04 |
| AN 406: Growth and Nutrition.   | 04 |
| AN 407: Medical Genetics.   | 04 |
| AN 408: Molecular Anthropology.   | 04 |
| AN 409: Molecular Anthropology – Practical  | 04 |
| AN 410: Dissertation – Part – II – (Compulsory Course).                           | 05 |

**1. AN-301: Medical Anthropology: Health, Culture and Society -**  
- Optional Course– (4 credits).

The course provides an overview of the field of Medical Anthropology, basic concepts and understanding of social and cultural dimensions and determinants of health and the areas of social epidemiology and ethno-medical traditions.

**At the end of the course the students are expected –**

- i. To developed an understanding of anthropological approaches to the study of health and disease.
- ii. To understand cross cultural variation in the domain of health and disease.
- iii. To understand about healing traditions and medical pluralism.

**Unit 1- Medical Anthropology**

- Origin
- Definitions
- Scope

**Unit 2- Health, culture and ecology**

- Ecological approach as conceptual orientation
- Ecological conditions, cultural practices and Biological adaptations
- Epidemiology and ecology

**Unit 3- Ethno-medicine**

- Concept of ethno-medicine
- Ethno-medicine as cultural institution
- Disease etiology, classification and diagnosis
- Natural, supernatural and social agents of illness
- Ethno-medical therapy
- Ethno-medical specialists
- Preventive measures

**Unit 4- Medical aspects of social system**

- Illness as sanction
- Illness as deviance
- Health and illness an indicators of social systems performance
- Concept of sick role

**Unit 5-Health, Disease and Illness**

- Conceptual differences health, disease and illness.
- Concept of health by World Health Organization.
- Cross-cultural variation in the understanding of the concepts of health and disease.

**Unit 6- Determinants of health**

- Life style
- Nutrition
- Genetic
- Environment

**Unit 7- Epidemiology**

- Historical aspects, definition, aim and uses
- Descriptive epidemiology
- Determinants of disease, Natural history of disease
- Epidemiology of infectious and non- infectious diseases
- Epidemiological principles in prevention and control disease

**Unit 8- Medical pluralism**

- Ayurved
- Homeopathy
- Unani
- Naturopathy
- Sidha
- Medical pluralism and health seeking behaviour
- Professionalization of traditional medicine

**Unit 9 -Reading and Seminar Topics**

## References

- Beaglehole&Bonita 1993 Basic Epidemiology, WHO Publication, Geneva.  
Davidson, E. 1995 Principles and Practice of Medicine, Pearson Professional Ltd., London
- David, E. 1984 Foundation of Epidemiology , Oxford University Press, New York
- Deodhar& others 1971 Basic Preventive and Social Medicine, Pune.  
Foster 1978 Medical Anthropology, John Willey & Sons, New York.
- Helman, C 2000 Culture, Health and Illness , 4 t h Ed. Reed Educational an Publishing Ltd.
- Kakar,S. 1982 Shamans, Mystic and Doctors, Oxford university Press.
- Kleinman, A. 1980 Patients and Healers in the Context of Culture , University of California Press
- Lad, Vasant 1994 Ayurveda: The Sciences of Self – Healing. MotilalBanarasidas, New Delhi.
- Leslie, 1977 Asian Medical Systems: A Comparative Study, University of California Press. London.
- Park & Park 1994 Textbook of Preventive and Social Medicine, BanarasidasBhanot, Jabalpur.
- McElory&Tomnserd 1985 Medical Anthropology: Ecological Perspective, Westview Press, London.
- Shivshankar 1993 The System of Ayurveda. Prince Publications, New Delhi.
- Essays in Medical Anthropology, 1629 The Mankind Quarterly, Monograph Number Suit 520, K St. N.W. Washington, D.C.  
K Park, Preventive and Social Medicine.BansaridasBhanot Publishing House, New Delhi.
- Sathe,P.V., 1991 Epidemiology and Management for Health Care. Popular Prakashan, Mumbai,  
Sathe, .P.,
- David E., et. al. 1984 Foundations of Epidemiology Oxford University Press, New York,
- Last, J.M., Spasoff, 2001 A Dictionary of Epidemiology, Oxford University Press, New York, 4th Ed.,  
R.A. Harris, S. S. and Thuriaux, M.C. (Eds).
- Dr. C. Gopalan, , 1987 Nutrition Problems and Programmes in South East Asia: World Health Organization, New Delhi

## 2. AN-302: Recent Trends in Anthropology

- Optional Course – (4 credits).

The course focuses on the recent trends in anthropological thinking. The course also takes view of the emerging interdisciplinary Developments in the field of anthropological sciences, combining Anthropological perspectives with that of the biology, psychology, Ecology, etc.

## **SYLLABUS**

### **Unit 1: Post Modernism**

- Post-modernism as a reaction to modernism;
- Post-modernism as a theoretical perspective;
- Post-modernism as a methodological paradigm;
- Post-modernism and anthropology;
- Contributions and criticism.

### **Unit 2: Systems Theory**

- Contributions of Talcott Parsons;
- Society as a dynamic system;
- Equilibrium and social integration;
- Contributions and criticism.

### **Unit 3: Dialectical Anthropology**

- Dialectics – Classical tradition;
- Dialectics – Hegel and Marx;
- Dialectics anthropology as a perspective;
- Contributions and criticism.

### **Unit 4: Symbolic Anthropology**

- The paradigm of symbolic anthropology;
- Contributions of Clifford Geertz, V. Turner and Mary Duglos;
- Methodological approach within symbolic anthropology;
- Contributions and criticism.

### **Unit 5: Ethno-methodology**

- Phenomenological sociology and Ethno-methodology;
- Reflexivity, accountability, indexicality;
- Documentation method – Etcetera principle;
- Contributions and criticism

### **Unit 6: Ecological Anthropology**

- Definition of ecology, culture and ecology, human ecology;
- Man and adaptation: culture and natural environment, Ecosystem, human ecological niche,
- Ecological community;
- Environment and environmentalism:
- Exploitation of natural resources,
- Deterioration and degradation of environmental quality;
- Environmental sustainability;
- Ecological movements: Contributions and criticism.

### **Unit 7: Psychological Anthropology**

- Nature and scope
- Definition of personality, Basic personality and model personality;
- A Critique on - Contributions by - Ruth Benedict, Margaret Mead; Ralph Linton, Kardiner and Cora-du-Bois;
- Personality and National character studies;
- Contributions and criticism.

### **Unit 8: Reading unit and seminar topics**

**References:**

- Hardesty, Donald 1977 Ecological Anthropology, John Wiley and Sons.
- Hubinger, Vaclav 1996 Grasping the Changing World: Anthropological Concepts in the Post-Modern Era, Routledge, London
- Parsons, Talcott 1951 The Social System. American Publishing Company Pvt. Ltd., New Delhi.
- Schneider and others 1977 Symbolic Anthropology: A Reader in the study of Symbols and Meanings. Columbia, University Press.
- Turner, Roy 1974 Ethno-Methodology. Penguin Education, England.
- Bennet, John 1979 The Ecological Transition: Cultural Anthropology and Human Adaptation, Pergamon Press Inc., Great Britain.
- Douglas, Mary 1978 Cultural Bias. Royal Anthropological Institute, Great Britain and Ireland.
- Garfinkel, H. 1967 Studies in Ethno-methodology. Prentice Hall Inc., New Jersey.
- Geertz, Clifford 1973 The Interpretation of Culture: Selected Essays. Basic Books Inc. Publishers, New York.
- Tax, S. & Freeman, L. 1977 Horizons of Anthropology. Aldine Publishing Company, Chicago.
- Chapple, Elliot 1980 Biological Foundations of Individuality and Culture. Robert E. Krieger Publication, New York.
- Gadgil & Guha 1997 This Fissured Land: An Ecological History of India. Oxford University Press, New Delhi.
- Ingham, John 1996 Psychological Anthropology Reconsidered. Cambridge University Press.
- Manganaro, Marc 1990 Modernist Anthropologist: From Fieldwork to Text. Princeton University Press, New Jersey.
- Sperber, Dam. 1975 Rethinking Symbolism. Cambridge University Press

### **3. AN-303: Developmental Anthropology.**

- Optional Course – (4 credits).

This course would focus on the concept of development. It would delineate the concept of developmental anthropology and highlight upon the role of anthropologists in development process. Various paradigms of development would be discussed with focus upon the mechanism, agencies involved, response of the people and outcome.

**At the end of the course, the students are expected to understand about -**

- i. The concept of development;
- ii. Role of anthropologists in development process;
- iii. Various paradigms of development;
- iv. Agencies of development;

#### **Unit -1 Introduction**

- The Three Approaches in the Anthropology of Development.
- The Discourse of Development
- Populism, Anthropology and Development
- The Entangled Social Logical Approaches

#### **Unit – 2 Socio-Anthropology of Development**

- Socio-Anthropology of Development
- Definition Scope and Subject Matter
- Comparative-ism
- Action,Populism

#### **Unit-3 Theories, models and approaches of development**

- Modernization Model
- Modernization and Top to Down Governance
- Critique of Modernization as a Dependency Paradigm
- The Bottom-up approach as a Multiplicity Model
- The Cultureologist Approach
- Multiplicity paradigm and people's Participation
- Paradigm of Participatory Development

#### **Unit - 4 Agencies of Development**

- Government agencies: Role of Welfare State in Development
- Non-Government Organizations (NGOs)
- Community Based Organizations (CBOs)
- International Development and funding agencies,

- United Nations development
- International co-operation in the field of development efforts.

#### **Unit – 5 Impediments to Development**

- Cultural Impediment
- Social Impediment
- Economic Impediment
- Political Impediment
- Religious Impediment
- Psychological Impediment
- Natural Impediment
- Administrative Impediment
- Corruption-al Impediment
- Educational Impediment
- Health Impediment
- Terroristic Impediment
- Ecological Impediment
- Communicational Impediment
- Naxal Impediment

#### **Unit – 6 Reading and Seminar**

## References:

- Gardner, K. & Lewis 1996 Anthropology, Development and Post-Modern Challenge. Pluto Press, London.
- Grillo, R. & Rew, A. 1985 Social Anthropology and Development Policy. Tavistock Publication, London.
- Malhotra, R. (ed.) 1992 Anthropology of Development. Mittal Publications, New Delhi.
- Mukherjee, R. 1991 Society Culture Development, Sage publication, New Delhi.
- Saraswati, Baidyanath 1997 Integration of Indigenous Cultural Dimensions into Development. Indira Gandhi National Centre for Arts.
- Sharma, S.L. 1986 Development: Socio-Cultural Dimensions. Rawat Publications, Jaipur.
- Misra, S.N. 1986 Panchayat Raj, Bureaucracy and Rural Development. Indian Institute of Public Administration, New Delhi.
- Misra, R.P. 1985 Development Issues of Our Time. Concept Publication Company, New Delhi.
- Negi & Gaikwad 1989 Socio-Cultural Dynamics of Tribal Development. Tribal Research & Training Institute, Pune.
- Pathy, Jagannath 1988 Ethnic Minorities in the Process of Development. Rawat Publication, Jaipur
- Vorhies and others 1989 The Politics of Hunger. Hillsdale College Press, Michigan.
- Dunn, P.D. 1978 Appropriate Technology. Schochen Books, New York.
- Rogers, Everell 1976 Communication and Development: Critical Perspectives. Sage Publication, London.
- Saksena & Tiwari 1998 Perspectives in Tribal Development, Bharat Book Center.
- Shore & Wright (ed.) 1997 Anthropology of Policy: Critical Perspectives on Governance and Power
- Vatsyayan, Kapila 1996 Interface of Cultural Identity and Development. Indira Gandhi National Center for Arts.

**4. AN-304: Social Gerontology -**  
- Optional Course – (4 credits).

**Aim**

Rapidly expanding numbers of older persons around the world represent a social phenomenon without historical precedent. To date, population ageing has been a prominent issue largely in the industrialized nations of Europe, Asia and North America. In at least 50 such countries, 15 percent or more of the entire population is 60 years or above. These nations have experienced an intense public debate over issues that are directly linked to the changing age structure of their population.

What is not as widely appreciated is the fact that population ageing is occurring in less developed countries like India. The older populations in most of the more developed Nations are over 60 millions. This is expected to almost treble during the next 25 years.

Keeping in mind the changing times and changing needs, this course on Social Gerontology has been introduced to expose the students to the basics of gerontology – the demographic, as well as socio-cultural dimensions of ageing and their long term implications. The course ends with a note on Quality Ageing.

**Unit-1: Ageing in Twentieth Century**

- Global Perspective;
- Situation in India;
- Demography of Ageing and Longevity.

**Unit-2: The process of Ageing**

- Biological Ageing;
- Psychological changes;
- Socio-cultural Dimensions of Ageing.

**Unit-3: Ageing in Cultural Context**

- The Diverse meanings of Age & Ageing,
- Sex & Gender in Ageing Society,
- Elderly females in India,
- Ageing and Widowhood.

**Unit-4: Aged in the family**

- Changing status and role;
- Family Support: Ageing in Urban India.
- Ageing in a Rural/ Tribal Society.
- Institutionalized ageism and intergeneration relation.
- Family care verses Senior Citizen's Homes

**Unit-5: Ageing and Health**

- Organic and psychosomatic changes.
- Chronic Diseases of Old Age;
- Minor ailments
- Healthy Ageing;
- Life-style and Ageing;
- Ageing & Nutrition.

**Unit-6: Welfare of the Aged**

- Rights and Responsibilities of the aged;
- Charter of Rights of the Aged.
- Policies for the Old People.

**Unit-7: Reading and Seminar Topics.**

## References:

- Bond, Jam; Peter Coleman, Shiela Peace 1996 Ageing in Society - An Introduction to Social Gerontology Sage Publication, New Delhi.
- Dandekar, K 1996 The Elderly in India Sage Publication, New Delhi.
- Gubrium, Jaber F.; Sankar, Andrea; 1994 Qualitative Methods in Aging Research.Sage Publication, New Delhi
- Ulijaszczk Stanley J; Johnston, Francis 1998 The Cambridge Encyclopedia of Human Growth And Development, Cambridge University Press.
- E.;.Preece, Micheal A.; Rao, Venkoba A. 1987 National Task Force on Problems of The Aged Seeking Psychiatric Help.Indian Council of Medical Research, New Delhi.
- BagchiKalyan 1997 Elderly Females In India , Society for Gerontological Research, New Delhi and Helpage India, New India
- Bhatia, H. S. 1983 Ageing and Society, Aryas book Centre, Udaipur-313001 (India).
- Gokhale, S.D.; Ramamurti, P. V.; Pandit, Nirmala; Pendase, Balwant. 1999 Ageing In India , Somaiya Publications Private Limited, Mumbai-400014
- Muttagi P. K. 1997 Ageing Issues and Old Age Care, Classical Publishing Company, New Delhi.
- Shrivastava, R.C 1994 The Problem of the Old Age , Classical Publishing
- United Nations 1994 Ageing and the Family , ST/ESA/SER.R/124 United Nations, New York
- Myerhoff, Barbara 1978 Aging and the Aged in Other Cultures: An Anthropological Perspective, In The Anthropology of Health. E. Bauwens, ed. Pp. 151-166 St. Louis: C.V. Mosby
- National Sample SurveyOrganization (Sarvekshana), 1983 (July-October), Department of Statistics, Ministry of Planning, Government of India. 7 (1-2).
- National Sample Survey Organization (Sarvekshana), 1991 (October-December), Department of Statistics, Ministry of Planning, Government of India. 15(2).
- Straurt- Hamilton Ian 1995 The Psychology of Ageing , Jessica Kinglsey Publishers, London and Bristol, Pennsylvania
- Craig, Grace J. 1996 Human Development Prentice Hall, New Jersey.

- Pati, R. N. & Jena, B. 1989 Aged in India,  
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- Chakravarty, Indirani ( ed ) 1997 Life in Twilight Years ,  
Kwality Book Company, Calcutta
- Krishnaraj, M; R. 1998 Population and Development,  
Sudarshan and A. Shariff  
Rao, S. (eds) Oxford University Press, New Delhi.
- Gupta, Monica Das; 1995 Women s Health in India: Risk and Vulnerability  
Lincoln C. Chen and T.N.  
. Krishnan (eds) Oxford University Press Bombay
- Martin, Linda, G 1988 The Aging of Asia ,  
Journal of Gerontology: Social Sciences, 43(4): S 99 – 113.
- Cross Cultural Studies In 1982 Social Sc. Medicine 14 (2).  
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- Ageing in Cultural Context 1992 A Symposium 1992 Social Sc. Medicine 32 (12).
- Laragh JH and 1990 Hypertension: Patho-physiology, Diagnosis, and Management,  
BM Brenner (eds.) New York: Revan Press.
- World Health Organization 1997 World Health Report, Geneva.
- World Health Organization 1998 World Health Report, Geneva

## **5. AN-305:Social – Cultural Change**

- Optional Course– (4 credits).

This course aims at discussion of various processes leading to change in the existing configuration of any socio-cultural system. This course would introduce the students to the analysis of various factors and processes which contribute to the phenomena of socio-cultural change.

**At the end of the course, the students are expected to understand about -**

- i. the processes responsible for socio-cultural changes;
- ii. the analysis of factors contributing to socio-cultural changes;.

### **Unit-1 Dynamics of Culture**

- Culture and Social dynamics
- Importance of Studying culture and social change
- Distinction between Social Change and Cultural Change
- Stability and Change

### **Unit-2 Nature and dynamics of Change**

- Evolutionary and Diffusionistic Perspective of Change
- Dialectical and Conflict Model of Change
- Equilibrium Models of Change: Structure – Functionalism
- Parsonian Differentiation Model

### **Unit-3 Factors and Processes of Change**

- Cultural lag;
- Factors: Economic, Technological, Demographic, Ideational, etc
- Concept of Innovation; Diffusion Innovation;
- Acculturation, Assimilation, Accommodation, Reinterpretation and Integration

### **Unit-4 Cyclic Theories of Change**

- Contributions of Oswald Spengler,
- Contributions of Arnold Toynbee,
- Contributions of Pitrim Sorokin,
- Contributions of Alfred Kroeber: Configuration of Culture growth

### Unit-5 Social Cultural Changes in India

- Urbanization, Industrialization, Sanskritization,
- Modernization, Westernization, Globalization –in the context of India

### Unit-6 Reading and Seminar Topics.

#### References:

- |                              |      |   |
|------------------------------|------|---|
| Barnet H.G.                  | 1953 | Innovation, The basis of culture change, McGraw Hill, New York                      |
| Moore W.E.                   | 1965 | Social Change, Foundation of Modern Sociology Series, Prentice Hall of India, Delhi |
| Rogers E.M.& Shoe maker F.F. | 1962 | Communication of Innovation, The Free Press, New York.                              |
| Strasser& Randall            | 1981 | An Introduction to theories of Social Change, Routledge& Kegan paul                 |
| Galt A. & Smith L.           | 1976 | Models & Study of social change, Wiley & Sons.                                      |
| Punekar U.B.                 | 1974 | Assimilation, Asia Publishing, Bombay   |
| Rao M.S.A.                   | 1970 | urbanization And Social Change Orient Longman, Delhi                                |
| Singer, M.                   | 1972 | When a Great Tradition Modernizes Vikas Publications , New Delhi                    |
| Smith Anthony                | 1973 | The Concept of Social change, Routledge& Kegan Paul, London                         |
| Ponsion J.A.                 | 1969 | The Analysis of social change reconsidered, Mouton and Company, The Hague           |
| Srinivas M.N.                | 1966 | Social Change in Modern India, Allied Publication, Bombay.                          |
| SundarRajan                  | 1986 | Innovative Competence and Social Change IPQ Publications                            |
| Zaltzmann Gerald             | 1973 | Process and Phenomenon of Social change, New York, Wiley, Inter Science             |
| Zamara D.M.                  | 1993 | Perspectives on cultural change and development, Reliance Publishing House, Delhi.  |

## **6. AN-306:Applied Biological Anthropology**

- Optional Course– (4 credits).

This course provides applied knowledge of anthropology in the field of architecture, ergonomics, kine-anthropology, Forensic Anthropology, criminology and sports. The course shows diverse and integrated nature of anthropological work and how the biological anthropological knowledge and methods can be applied for the human welfare.

### **At the end of the course Students are expected to:**

- i. Understand how biological anthropological knowledge and methods can be applied for the human welfare
- ii. Understand the use of tools and techniques of biological anthropology in relation to:
  - Field of architecture,
  - Ergonomics,
  - Kine-anthropology
  - Sports
  - Forensic anthropology and criminology
  - Textiles and manufacturing industries

### **Unit 1: Anthropology for Architecture:**

- Sub-human Architecture (nest building behavior of animals and apes), Initial shelters- raw material, typology, size and dimensions.
- Shelter and society: hunting gathering pastoral nomadic, settled agriculturist and urban shelters, with reference to Mesolithic, Neolithic and Harappan and tribal settlements. Non domestic and domestic settlements.
- Settlement Pattern: Geographical, Religious, Cultural and Ecological concepts.

### **Unit 2:Ergonomics:**

- Human factor: Human and interaction with products, equipments and furniture. Anthropometry: static and dynamic measurements, ethnic differences, occupational and ecological factors. Applications of Anthropometry
- Kine-anthropology and Ergonomics, Anthropology in the designing of defense and other equipments.

### **Unit 3: Physiological Anthropology:**

- Age, sex and population variation in the physiological characteristics of man.
- Blood Pressure, Blood Pressure Variation by Age, Sex and Population
- Human adaptability, Impact of smoking, air, water and sound pollution, alcoholism, drugs and occupational hazards on human health. Cardiovascular diseases and Hemoglobin
- Human Ecology, Nutritional stress, Infectious diseases, Desert, Cold Deserts and Cold tolerance, Nutritional ecology.

### **Unit 4: Sports Anthropology:**

- History and development of Sports anthropology.
- Human physique and body composition and its role in sports participation and excellence.
- Methods of studying human physique.
- Physical work capacity and sports performance.
- Race and sports performance

### **References:**

- |                                   |      |   |
|-----------------------------------|------|---|
| Bhasin V..                        | 1990 | Habitat, habitation and Health in the Himalayas, Kamala Raj Enterprises Delhi |
| Heath D., Williams D.K            | 1981 | Man at High altitude. Churchill Livingstone, Edinburgh.                       |
| Sheldon V.S.                      | 1980 | The varieties of human Physique.  |
| Bendix, T                         | 1986 | Seated trunk posture at various seat inclinations in Human Factor             |
| Tichauer, E.R.                    | 1986 | The biomechanical basis of Ergonomics. New York Wiley.                        |
| Singh, S.P. and Malhotra P.       | 1989 | Kin-anthropometry. Anthropology of Sports                                     |
| Singh S.P. & Promila Mehta        | 2009 | Human Body measurements Concepts & applications                               |
| Singh S.P., Siddha L.S.& J. Singh | 1992 | Skeletal Maturity, HBPS, Patiala  |
| Sodhi H.S.                        | 1991 | Sports Anthropometry, Anava Publishers, Mohali                                |
| V. Rami Reddy                     | 2012 | Current Trends in Human Genetics & Physical Anthropology                      |
| Lohman T.G.                       | 1992 | Advances in Body Composition, Assessment, Human Kinetics Campaign.            |

## **7. AN-307: Population Genetics**

- Optional Course – (4 credits).

The course provides the basics of population genetics, genetic polymorphism, important genetic markers in human populations and biological consequences of consanguinity.

### **At the end of the course students are expected to:**

- i. Know the relationship of population genetics and genetic changes in populations
- ii. Understand basic principles of population genetics in terms of human variation and adaptation
- iii. Appreciate the variation in human populations for various genetic traits because of genetic changes
- iv. Understand the evolutionary forces responsible for these variations
- v. apply knowledge of population genetics for anthropological, genetic and medical problems .

### **Unit 1: Population Genetics**

- Definition and scope of population genetics, its relevance in anthropology and its relationship with other branches of human
- genetics – Formal genetics, development genetics,
- Cytogenetics and molecular genetics.
- Genetic Diversity in Humans

### **Unit 2: Methods in Population Genetics and Genetic polymorphism**

- Mendelian Population:
- Hardy- Weinberg law
- Factors affecting gene frequencies – mutation, migration, hybridization, genetic drift and selection.
- Genetic polymorphism – balanced, transient and neutral

### **Unit 3: Genetic Markers in Human Populations Classical Markers**

- Tasters/ non-tasters- Genetic, distribution
- Skin pigmentation- Melanin, normal, induced
- Dermatoglyphics- Finger, Palmer
- Colour blindness – Genetics, distribution
- ABO blood group and subtypes

- Bombay blood type gene frequencies
- MNs system-inheritance, gene frequencies
- Rh blood group system- Nomenclature
- Kell and Duffy system
- ABH secretion
- Lewis antigens
- Blood groups and diseases
- Medico-legal aspects and analogy

#### **Unit 4: Hemoglobin variants**

- Normal adult Hemoglobin HbA, HbA2
- Fetal Hemoglobin; and HbS

#### **Unit 5 Plasma Proteins**

- Haptoglobins
- Transferrins
- Group specific components and
- Immunoglobulins

#### **References**

- |  |       |  |
|--|-------|--|
| A.M. Winchester.                                       | 1985. | Genetics.<br>Oxford & IBH Publishing Co. New Delhi   |
| Arthur Guyton, John E. Hall                            | 2000  | Text book of Medical Physiology,<br>WB Saunders Co. 10 <sup>th</sup> edition, Philadelphia |
| Gupta P.K.   | 2003  | Elements of Biotechnology,<br>Rastogi Publication, Meerut.                                 |
| Hartl, Daniel L. and Jones, Elizabeth W.               | 2001  | Genetics: Analysis of Genes and Genomes.<br>Jones&Bertlet Publishers, Sadbury, Canada      |
| James H.Mielke, Lyle w. Konigsberg Jones H. Relethford | 2005  | Human Biological Variation,<br>Oxford University Press, New York                           |
| Lerner K Lec and Lerner Brenda Wilmoth                 | 2002. | World of Genetics. Gale group Publication.<br>Farmington Hills, USA                        |
| Mange E.J and Mange A.P Basic                          | 1997. | Basic Human Genetics.<br>Rastogi Publications Meerut                                       |

- Michael H. Crawford  
Richard Robinson                      2003.      Anthropological Genetics: Theory, Methods and Applications.  
Genetics.  
The Mcmillan Science Library, Vol. 2, The Gale Group, Inc, New  
York, USA.
- Shargel Leon.                              2005      Applied Bio-pharmaceutics and Pharmaco-kinetics.  
McGraw Hill Publications. New York.
- CurtStern                                    1968      Principals of Human Genetics,  
Eurasia publishing House, Pvt. Ltd, New Delhi
- Racc. RR, and Sanger R,                1959      Blood Groups and Transfusion,  
CC. Thomas , Springfield III
- Wiener, AS and Wexler, IB            1958      Heredity of the Blood Groups.  
Gruen and Strattan, New York
- Dahlberg, G                                1947      Mathematical Methods for Population Genetics.  
S. Karner, New York
- Li, C.C                                        1955      Population Genetics,  
University of Chicago Press, Chicago
- Fisher, R.A                                 1954      Statistical Method for Research Works,  
Harper, New York
- Swansar, C.P                               1957      Cytology and Cytogenetics  
Prentice-Hall, Englewood cliffs
- Hollaender, A                              1954      Radiation Biology.  
McGraw Hill, New York

## **8. AN-308:Forensic Anthropology -**

- Optional Course– (4 credits).

This course provides basic knowledge of Forensic Anthropology. The course will focus on various aspects of Forensic Anthropology like Anthropometry, Dermatoglyphics etc. The course provides introduction to Forensic sciences with reference to Anthropological techniques.

### **Unit 1. Introduction to Forensic Science**

- History and Development of Forensic Anthropology
- Basic principles, nature and scope of Forensic Anthropology
- Functions and Ethics of Forensic Anthropology
- Special Areas of Forensic Science,

### **Unit 2. Osteology and Forensic Anthropology**

- Osteology, Anthropometry, Osteometry,
- Ethnic and personal identity, Age determination, Sex identification,
- Determination of stature from long bones.

### **Unit 3. Dermatoglyphics in Forensic Anthropology**

- Principles of Finger printing, Methods of detecting prints, Classification of Prints
- Finger prints tracing and developing techniques
- Matching of finger prints
- Use of sole and palm prints including sole marks analysis of ridge and crease characteristics
- Questioned documents and Forgery, Identification of Handwriting

### **Unit 4. Personal Identification**

- Somatometry and somatoscopy
- Mannerisms, scars, occupational marks hand writing etc
- Analysis of hair structure and types.
- Body fluids viz. semen, blood, saliva, urine and sweat
- Voice recognition; odour identification

### **Unit 5. Recent trends in Forensic Anthropology**

- Serological and Cytogenetic factors
- Serology and other body fluids, Blood groups and cases of doubtful parentage.
- Reconstruction of facial physiognomy
- DNA fingerprinting.
- Computer application

**References:**

Bridges B.C. Practical Finger Printing

Cummins and Midlo Dermatoglyphics

Sarah Holt B. Genetics of Dermal ridges.

Surindernath Forensic Anthropology

Ment Modern Trends in Forensic Sciences.

Nicoles Methods in Forensic Science.

Steward T.D. Forensic Anthropology

Forbes G. B. Human Body Composition

Sheldon W.H. Varies of Human Physique

Lohman T.G. Advances in Body Composition assessment,  
Human Kinetics, Champaign

Singh I.P. and M.K.Bhasin Anthropometry

Sodhi H.S. Sports Anthropometry.  
Mohali anoka Publications

Tanner J.M. Assessment of Skeletal Maturity  
and Prediction of Adult Height

Steward, T.D. Essentials of Forensic Anthropology.  
Springfield Charles. C. Thomas Publishers

Turner. Forensic Science and Laboratory Techniques

Singh, S.P. and Malhotra, P. Kin-anthropometry.

**9. AN-309:Population Genetics Practical  
(Serology, Hemoglobin-opathies, etc.)**

-Optional Course – (4 credits).

This practical course provides knowledge of Laboratory tools and Techniques involved in Serology and Hematological Analyses.

**At the end of the course Students are expected to:**

- i. Understand modern/advanced technological tools and laboratory techniques
- ii. Study various blood groups and diseases associated with it
- iii. Apply modern techniques for screening various genetic traits
- iv. Understand their use in anthropological and medical fields
- v. Be able to spread awareness about genetic disorders through counseling of affected families so as to prevent the spread of disorder in future generations

**Unit 1: Serology**

- Blood groups:
- Anthropological importance, techniques, collection of sample
- Identification of ABO and Rh system
- MN System

**Unit 2 Haemoglobinopathies-**

- Sickle cell Anemia by slide method and test tube method
- Thalassemia, G6PD
- Colour Blindness
- PTC taste sensitivity

**Unit 3: Physiology of blood.**

- Blood pressure,
- Blood sugar,
- Red cell antigens and plasma proteins

**Unit 4:Blood Cells and Variants.**

- Counting of RBCs and WBCs.
- Hemoglobin estimation.
- Bleeding and Clotting time.

**Unit 5: Use of Genetic Markers in Population genetics**

- Introduction to Statistical tools for studying
- Population Genetics
- Calculation of Allele Frequencies
- Calculation of Genetic Distance
- Dendrograms, Histograms, Modal analysis, ANOVA,
- Multivariate analysis

**10. AN-310:Dissertation – (Part – I) –**  
- Compulsory Course – (5 credits).

The students would individually select a theme for their dissertation. During Part – I, the students would focus upon the development of a research design. This would include review of literature, development of tools for data collection. Students would work under the supervision of faculty members assigned to them. The preliminary research design will be presented by each student, during the semester. Recommendations for improvements in the research design would be incorporated by individual students while they finalize their final reports. At the end of the semester, each student would present the final report in a seminar, before final submission.

**At the end of the course, the students are expected to carry out the following research activity -**

- i. preparation of research design;
- ii. review of literature;
- iii. development of tools for data collection;
- iv. finalization of report;
- v. Presentation of the final report.

**1. AN-401: Medical Anthropology:  
Approaches, Public Health Policies and Programs**  
- Optional Course – (4 credits).

The objective of this course is to familiarize students with both public and the private health sector, health policy and planning and health care delivery system with special reference to India. It provides in-depth understanding of various health issues and infectious and non-infectious disease including life-style diseases control programs. Acquaint students with inter-sector approaches; health promoting and preventive initiatives such as NRHM, Integrated Child Development Scheme (ICDS) and AYUSH in India.

**At the end of the course the students are expected to –**

- i. Understand about the field of public health;
- ii. Understand the process of public health planning;
- iii. Understand the implementation and evaluation of health policies and programs

**Unit 1- Medical Anthropology approach**

- Cultural
- Contextualization
- Etic and Emic
- Cultural Relativism and Ethnocentrism

**Unit 2- Theoretical perspectives in medical anthropology**

- Structural-functional approach
- Cognitive-symbolic perspective
- Marxist political-economy model
- Transactional approach
- Critical Anthropology perspective
- Explanatory model (EM)

**Unit 3- Health planning and policies**

- Basic concepts in public health planning
- Evolution of public health planning in India
- National health policies- 1983 and 2002

**Unit 4-Health Care Delivery System in India**

- Structure of health care delivery system
- Primary healthcare approach
- Functional organization of the public health system
- Primary Health Centers
- Sub – Centers
- Private health care sector

**Unit 5- Health and Environment**

- Pollution and its effects on health
- Air, water and noise pollution
- Occupational health problems and programmes

**Unit 6- International health programmes**

- World Health Organization and its programmes
- Millennium Development Goals- 2000

**Unit 7- Overview of National Health Programmes in India**

- HIV-AIDS Control Programme
- Reproductive and Child Health (RCH phase I and RCH phase II)
- National Tuberculosis Control Programme (NTP and RNTP)
- National Programme for Prevention and Control of Diabetes, Cardio-vascular Diseases and Stroke.
- National programmes for control of Cancer, Blindness and deafness

**Unit 8- Recent Health Initiatives**

- National Rural Health Mission
- Aayush
- Health research and bio-ethics
- Legislative measures in health sector

**Unit 9 - Reading and Seminars.**

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- Helman, C.G. 2000 Culture, Health and Illness, 4<sup>th</sup> Ed. Reed Educational and  
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- National Institute of 1993 Maternal & child health, New Delhi.  
Health & Family Welfare
- Ministry of Health & 1983 National Health Policy, New Delhi.  
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- Park & Park 1994 Textbook of Preventive and Social Medicine, BanarasidasBahnot,  
Jabalpur.
- Sathe&Sathe 1991 Health Care for All , Popular Prakashan, Mumbai
- W.H.O. 1992 Our planet our health, Geneva.
- W.H.O. 1976 Health hazards from new environmental pollutants ,  
Geneva.
- J. P. Gupta, A.K. Sood 2005 Contemporary Public Health- policy, Planning, Management,  
Michael Merson, Robert Apothecaries Foundation, New Delhi.  
E Black, Anne J Mills - International Public Health: Diseases, Programs, Systems, and  
Jones and Bartlett Policies - Jones and Bartlett Publishers  
Publishers
- Roger Detels, James 2002. Oxford textbook of Public Health Ed. Oxford University Press  
Mcewen, Robert (OUP) 4<sup>th</sup> Edition:  
Beaglehole, and Heizo  
Tanaka  
Robert Beaglehole and  
Ruth Bonita  
Public Health at the Crossroads Achievements and Prospects.  
2nd Edition Cambridge University Press

References, Links & Websites:

1. <http://mohfw.nic.in/> a. <http://mohfw.nic.in/np2002.htm> (National Health Policy - 2002)
- b. <http://mohfw.nic.in/major1.html> (Major National Schemes & Programmes)
- c. <http://mohfw.nic.in/dofw%20website/dofw.htm> (Family Welfare Activities)
- d. <http://mohfw.nic.in/NRHM.htm> (National Rural Health Mission)
- e. <http://mohfw.nic.in/NRHM/RCH/Index.htm> (Reproductive and Child Health)
- i. RCH Phase I ii. RCH Phase II
- f. <http://nvbdcp.gov.in/> (National Vector Borne Disease Control Programme)
- i. <http://nvbdcp.gov.in/iec.html> ii. <http://nvbdcp.gov.in/malaria-new.html>
- iii. <http://nvbdcp.gov.in/DENGU1.html> iv. <http://nvbdcp.gov.in/filariasis-new.html>
- v. <http://nvbdcp.gov.in/kala-new.html> vi. <http://nvbdcp.gov.in/je-new.html>
- vii. <http://nvbdcp.gov.in/RightAct.html> viii. <http://nvbdcp.gov.in/ums-new.html>
- ix. <http://nvbdcp.gov.in/Doc/drug-policy-08.pdf>
- g. <http://www.tbcindia.org/> i. <http://www.icmr.nic.in/pinstitute/trc.htm> ii. <http://www.who.int/tb/en/>
- iii. <http://www.stoptb.org/> iv. <http://www.whoindia.org/EN/Index.htm>
- v. <http://www.globalfundatm.org/> vi. <http://www.stoptb.org/gdf/> vii. <http://ntiindia.kar.nic.in/>
- viii. <http://www.worldbank.org/> ix. National Tuberculosis Control Programme (NTP)
1. <http://www.tbcindia.org/history.asp> x. Revised National Tuberculosis Control Programme (RNTCP)
1. <http://www.tbcindia.org/documents.asp#> 2. <http://www.tbcindia.org/perfor.asp>
- h. [http://mohfw.nic.in/National\\_Leprosy\\_Eradication\\_Programme/index\\_LEP.htm](http://mohfw.nic.in/National_Leprosy_Eradication_Programme/index_LEP.htm)
- i. <http://www.nacoonline.org/NACO>
- i. [http://www.usaid.gov/in/about\\_usaid/overview.htm](http://www.usaid.gov/in/about_usaid/overview.htm)
- ii. [http://www.usaid.gov/in/our\\_work/program\\_areas/health.htm](http://www.usaid.gov/in/our_work/program_areas/health.htm)
- <http://www.mohfw.nic.in/NCCP/NCCP%20Main.htm> (National Cancer Control Programme)
- <http://mohfw.nic.in/default.htm> (National Programme for Control of Blindness)
- <http://www.mohfw.nic.in/Website/Contents%20of%20Website.htm> (National Programme for Prevention and Control of Deafness)
- <http://www.mohfw.nic.in/NPDCS.htm> (National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke)
- <http://www.mohfw.nic.in/National%20Programme%20for%20Tobacco%20Control.html> <http://www.mohfw.nic.in/INDIAN%20TOBACCO%20CONTROL%20ACT,%202003.pdf> ii. <http://www.mohfw.nic.in/Notification%2015%20March%202008.PDF>
- iii. <http://www.mohfw.nic.in/Order%20-%20Monitoring%20Committee%20to%20check%20violation%20of%20Section%205%20of%20COTPA,%202003.pdf>

Journals:

1. Medical Anthropology
2. Anthropology and Medicine
3. Human Organisation
4. Social Science and Medicine
5. Culture, Health & Sexuality
6. Studies in Family Planning
7. International Family Planning Perspectives
8. Reproductive Health Matters
9. Journal of Public Health Policy
10. Health Policy
11. Health Education Research
12. Transactions of the Royal Society of Tropical Medicine and Hygiene
13. Health Policy & Planning
14. Tropical Medicine and International Health
15. Lancet
16. WHO Bulletin India
17. American Journal of Public Health
18. BMJ Journals
  - a. Journal of Medical Ethics
  - b. Journal Medical Humanities
19. BioMed Central
  - a. Malaria Journal
  - b. Journal of the International AIDS Society
  - c. BMC Infectious Diseases
20. AIDS
21. AIDS Care
22. AIDS Education and Prevention
23. AIDS Patient Care & STDs
24. Journal of Biosocial Science
25. The International Journal of Tuberculosis and Lung Disease
26. Tuberculosis
27. Indian Journal of Tuberculosis
28. Indian Journal of Medical Research
29. The National Medical Journal of India

**2. AN-402:Complex Societies and Urban Development –**  
- Optional Course – (4 credits).

This course would introduce various approaches to the study of complex, urban societies and the process of urbanization. Theoretical contribution of anthropology would be considered in the domain of complex and urban societies.

**At the end of the course, the students are expected to understand about –**

- i. The concept of complex societies;
- ii. The process of urbanization;
- iii. Theoretical contribution of anthropology in the domain of complex and urban societies.

**Unit 1- Urban Anthropology**

- Historical Perspective
- Contributions of Urban sociology to urban Anthropology
- Foundational concepts of Urban Anthropology
- Theoretical and heuristic implications of urban Anthropology

**Unit 2 – Folk – Urban Continuum**

- Ideal type analysis
- Folk ideal type: Characteristic of the Folk-Urban Continuum
- Critique of the concept of the folk urban continuum:
- Peasant society as part society and part Culture
- Primary and Secondary Urbanization

**Unit 3 – Anthropology of Urbanization**

- Urbanization and migration
- Culture of Poverty
- Migration and adaptation, adjustment and acculturation
- Urbanization and voluntary association

**Unit 4 - Role of cities in Cultural transformations**

- Pre industrial and post-industrial cities:
- Orthogenesis and hetero-genesis

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**Unit -5 Theoretical contributions of Urban Anthropology**

- Chicago school of Sociology
- Manchester School of Thoughts
- Concept of scale in Urban Anthropological Studies
- Social network Analysis
- Extended case study methods
- Anthropological approaches: categorical, structural and cultural
- Theoretical development on Urban African Studies

**Unit 6 Ethnicity and Pluralism**

- Concept of Ethnicity and ethnic group
- Ethnic identity
- Situational ethnicity
- Ethnic interaction
- Competition for scarce resources and ethnic conflict
- Ethnicity and nation building
- Ethnicity and nation breaking
- Ethnicity and national integration

**Unit – 7 Reading and Seminar Topics**

## References -

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- Baret F. 1969 Ethnic Groups & Boundaries.  
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- Fox Richard 1977 Urban Anthropology.  
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University of Chicago Press, Chicago.
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University of Chicago Press.
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Brown Company Publishers
- Erikson T H 1993 Ethnicity and Nationalism  
Pluto Press, London
- Danda, Ajitkumar 1991 Ethnicity in India  
Inter India Publication, New Delhi
- Fainstein & Campbell 1996 Readings in Urban Theory  
Blackwell Publishers, Massachusetts
- Glazor & Moynihan 1970 Beyond the Melting Pot.  
The M.I.T. Press, Massachusetts
- Goldberg, Theo D 1995 Multiculturalism: A Critical Reader.  
Blackwell, Oxford
- Singer, Milton 1997 Ethnicity.  
State University Of New York Press.
- Baily F G 1996 Civility of Indifference: On Domesticating Ethnicity.  
Oxford New Delhi
- Banks Marcus 1996 Ethnicity: Anthropological Construction.  
Routledge, London.
- Campbell & Faistein 1996 Readings in Planning Theory.  
Blackwell publications, Massachusetts.
- Cherry Gordon (ed.) 1974 Urban Planning Problems.  
Leonard Hill
- Paul Brass 1991 Ethnicity and Nationalism: Theory and Comparison,  
Sage, New Delhi.
- Pathy, Jagannath 1988 Ethnic Minorities in the process of Development  
Rawat Publications, Jaipur
- Ramchandra R 1991 Urbanization and Urban Systems in India,  
Oxford University Press, Delhi.

### **3. AN-403:Tribal and Rural Development -**

-Optional Course– (4 credits).

The course would focus upon the most important areas of tribal and rural Development in India.

**At the end of the course, the students are expected to understand about –**

- i. The weaker sections in Indian society;
- ii. Rural and tribal situation;
- iii. Approaches to Tribal Development;
- iv. Tribal development administration – Integrated Tribal Sub Plan Approach;
- v. Rural development -District Rural Development Agency;
- vi. ‘Panchayat-Raj’ Act – (for rural areas and tribal areas).
- vii. Tribal Development Corporation and *Adivasi* Co-operative Societies;
- viii. Role of Non-Governmental Organizations in rural and tribal development;

#### **Unit 1: The Weaker Sections in Indian Society**

- Concept of scheduled groups and scheduled areas;
- Population and distribution of scheduled tribes, scheduled castes;
- Scheduled areas in India;
- Distinctive characteristics of tribal and rural settings.
- Tribe – Definitions and Characteristic Cultural Features.

#### **Unit 2: Approaches to Tribal Development**

##### **Pre-independence period**

- Ancient period;
- Mughal period;
- British period;

##### **Post-independence period -**

- Constitutional safeguards and special provisions–
- Vital Policy decision between -  
Assimilation, Integration and Isolation
- National Policy on tribal development;

#### **Unit 3: Administration of Tribal Development -**

- Evolution of tribal development programs in India
- Concept of Planned Development - *Five Years Plan*.
- Review of Tribal Development during different *Plan Periods*.
-

- Fifth Five Year Plan Approach – *Tribal Sub-Plan Approach/ - Integrated Tribal Development Program.*

Administrative set-up for tribal development at ITD Project/ District/ State/ National level.

- Tribal Research and Training Institutes.
- State Co-operative Tribal Development Corporation.
- Improvement of Economic Conditions of Tribal Communities.
- Monitoring and review of tribal development – various review committees and commissions appointed and their recommendations.

#### **Unit 4: Rural Development**

- The Philosophy of Rural Development.
- Thrust Areas of Rural Development
- Special Programs of Rural Development
- ‘*Swarnajayanti Swayamrojgar Yojana*’
- Agriculture and Land Reforms.
- Drinking Water and Sanitation.
- Health Care

#### **Unit 5: Administration of Rural Development -**

- Thrust areas during the *Five Year Plans*.
- Community Development Projects.
- Integrated Rural Development Program.
- District Rural Development Agency.
- Special Component Plan for Scheduled Caste groups.
- Development Corporations for different weaker sections.

#### **Unit 6: ‘Panchayat Raj’ Act -**

- Concept and theme of ‘*Panchayat Raj*’
- Salient features of ‘*Panchayat Raj*’ Act;
- ‘*Panchayat Raj*’ and Rural development;
- Issues and debates related to ‘*Panchayat Raj*’.
- Gram Sabha: People’s empowerment and self-rule;

#### **Unit 7: Development Issues - Tribal/ Rural Problems and Movements**

- Forest and forest laws,
- Shifting cultivation,
- Land alienation,
- Indebtedness,
- Bonded labor
- Historical overview of tribal revolts and movements in India,
- Developmental displacement –
  - Physical, socio-cultural and psychological impact of displacement;
  - Rehabilitation of the displaced and the related issues;

- Identity crisis – development and loss of identity, ethnic violence;
- Environmental sustainability –
  - development and sustainability of resource utilization pattern;
- Social equity –
  - problem of equitable distribution of resources
  - socially justifiable development.
    - Food Security – Public Distribution System.

Role of -  
Tribal/ Rural leadership.  
Non-Governmental Organizations.

### **Unit – 8 Reading and Seminar Topics**

## References

- Deogaonkar, S. 1994 Tribal Administration and Development, Concept publication.
- Haimondorf, C. 1985 Tribes of India: Struggle for Survival , Oxford University Press, New Delhi.
- Long, Norman 1980 An introduction to the sociology of rural development , Westview press, Boulder, Colorado.
- Patil&Jagatdeb 1991 Tribal demography in India , Ashish publishing house, New Delhi.
- Singh, K.S. 1972 Tribal society in India;, Motilal Banarasidas, New Delhi.
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- Behera, M.C. 1994 Planning and socio-economic development of tribals , Commonwealth publishers.
- Choudhary, M. 1997 Tribes of ancient India, Indian museum, Calcutta.
- Khare, P.K. 1991 Social change of Indian Tribes: Impact of planning and economic development , Deep & Deep.
- Purushottham, P. 1993 Development administration: A rural perspective , Kanishka publication
- Sharma, B.K. . 1996 Tribal Revolts , Pointer
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- Govt. of India 1973 The Tribal People of India , New Delhi.
- Munda, G.S. 2000 Caste Dynamics and Tribal Societies , Dominant Publishers, New Delhi
- Sahay, K.N. 1998 Dynamics and Dimensions of Tribal Societies, Commonwealth Publications.
- Sahu, C. 1998 Primitive Tribes of India. Sarup & Sons.

#### **4. AN-404: Gender and Development**

- Optional Course – (4 credits).

This course aims at focusing upon the concept of Gender, gender in the context of Indian society, the importance associated with 'gender preference/ selection', relation between gender and social structure, gender and socio-cultural change, gender in the context of health and development, and importance of gender equality in the process of planning for development. This course would highlight upon the gender inequality, gender bias and gender discrimination in Indian society. This background discussion would delineate the need for gender equality in different spheres including the domain of development.

**At the end of the course, the students are expected to understand about –**

- i. The concept of gender;
- ii. Gender in the context of Indian society;
- iii. Relation between gender and social structure;
- iv. Gender and socio-cultural change;
- v. Gender in the context of health and development;
- vi. Importance of gender equality in the process of development;

#### **Unit 1: Concept of Gender**

- Concept of Gender, Gender and sex, WID, GAD, welfare, empowerment, patriarchy, third world.
- Theoretical concepts of Gender development: Sociological and Biological
- Cross cultural concepts of gender
- Approaches and strategies to gender studies

#### **Unit 2: Gender and Social Structure**

- Role of Social structure wrt gender
- Gender in context of Indian Society
  - Patriarchal society/ matriarchal society
  - Tribal
  - Rural

➤ Urban

- Cultural Factors determining gender roles and relationships
- Gender and violence: its effect on social structure

**Unit 3: Gender and Health**

- Gender issues in Health and Development
- Population policies and health policies: with special reference to developing countries and India
- Health Sector reforms: HIV/AIDS, Reproductive health, Mental health, ICPD and post ICPD

**Unit 4: Gender and economy**

- Impact of Globalization
- Gender participation in economic activity
- Work and gender relation

**Unit 5: Gender and social cultural Change**

- Sources of change
- Impact of changing cultural values on gender role
- Comparison of status of men and women wrt social cultural change

**Unit 6: Gender and development**

- Concept of gender development: Sensitivity, equity and discrimination
- Gender sensitive planning and development policies
- Gender and law
- Gender audacity and gender budgeting
- Gender and human rights
- Gender development index
- Gender sensitive projects Discussion.

## References

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- Moore, Henrietta 1988 Feminism and Anthropology, Minneapolis: University of Minnesota Press
- Palawala, R 1994 Changing kinship, family and gender relations in south Asia: Processes, trends, issues Woment and Autonomy centre, University Leiden, Leiden
- Sargent, C and Brettell, C 1996 Gender and Health: an International perspective, Upper Saddle River, NJ: prentice Hall
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- Susan Golombok, Robyn Fivush, 1994 Gender Development, Cambridge University Press,
- Jane L. Parpart, Patricia Connelly, Eudine Barriteau 2000 Theoretical Perspectives on Gender and Development, IDRC,

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|---|------|--|
| Judith E. Owen<br>Blakemore, Sheri A.<br>Berenbaum, Lynn S.<br>Liben<br>Scott, Catherine.       | 2008 | Gender Development,  |
|   | 1996 | Tradition and Gender in Modernization Theory” Gender and Development: Rethinking Modernization and Dependency Theory (Lynne Rienner    |
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| Tinkel, Irene (ed.)   | 1990 | Persistent Inequalities: Women and World Development. Oxford University Press,   |
|   | 2001 | World Bank. Engendering Development: Through Gender Equality in Rights, Resources, and Voice. Oxford University Press                  |
| Weiss, Anita M.   | 2002 | Walls Within Walls: Life Histories of Working Women in the Old City of Lahore. Oxford University Press, 2 <sup>nd</sup> edition,       |
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| Hijab, Nadia.   | 1988 | Womanpower: the Arab Debate on Women at Work. Cambridge University Press,  |
| Mies, Maria   | 1998 | Patriarchy and Accumulation o a World Scale: Women in the International Division of Labor. Zed Books,                                  |
| Nash, June and M.P.<br>Fernandes-Kelly.   | 1988 | Women, Men and the International Diviion of Labor State. University of New York Press,   |
| Prugl, Elisabeth  | 1999 | The Global Construction of Gender: Home-based Work in the Political Economy of the 20 <sup>th</sup> Century. Columbia University Press |
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| Bhasin Kamala   | 2000 | Understanding gender, Kali for women, N. Delhi,  |
| Basu Aparna   | 1999 | Women’s Education in India in Ray and Basu (edt): From Independence Towards Freedom, OUP,  |
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| Chakravarty Uma   | 2003 | Gendering caste through a feminist Lense, Stree, Calcutta  |
| Courting Disaster, PUDR report,<br>Davis Kathy, Evans<br>Mary, Lorber, J (edt)<br>Delamont Sara | 2006 | Handbook of Gender and Women’s studies, Saga, UK.<br><br>Feminist Sociology  |

Feminist Concepts, Contribution to women’s studies, part-I, II, III, RCWS, Mumbai.



## **5. AN - 405: Anthropological Demography --**

- Optional Course – (4 credits).

Anthropological demography is a new discipline that deals with the anthropological perspective to understand demography. It is specially emphasizing on explaining the socio-cultural aspects of demography in terms of its major phenomena of fertility (birth), mortality (death) and mobility (migration). It is further try to understand the population process with holistic methods. Ethnographic fieldwork and participant observation are often central to this approach reflecting the main thrust of cultural anthropology. It requires further the use of quantitative and qualitative methods to understand the patterns of culture in the modern and traditional societies.

**At the end of this course, the students are expected to understand:**

- i. the definition and the scope of anthropological demography,
- ii. Composition and Data related to demography and population studies.
- iii. Component of demography-fertility, mortality, migration and marriage,
- iv. Population control, population policies and the ageing issues

### **Unit 1: Review of Definitions and scope –**

Anthropological demography – Definition, Scope and History.  
Relationship of anthropology and demography through -  
Population genetics, Medical anthropology, Human evolution,  
Gerontology, and applied anthropology.

### **Unit 2: Sources of Demographic Data and Population studies -**

- Methods of demographic data collection
- Sources of data
- Population Census
- Census
- Vital Statistics,
- National Sample Survey
- Special Surveys
- National Health & Family Survey.

### **Unit 3: Anthropology & Determinants of Population Growth -**

Fertility  
Mortality  
Migration  
Marriage

Population Composition, Population Distribution,  
Population Structure (Pyramid), Population Growth,  
Population Bulge and Dependency.  
- In the context of India and the world.

### **Unit 4: Population Scenario – India & World -**

- Population and Sustainable Development.
- Population, Anthropogenic activities and Environment.
- Growth of Indian population
- Population Situation and Projections
- National Population Policy of India
- Role of Culture in Population Control
- Importance of Population Education.

### **Unit 5: Ageing Population -**

- Culture and care for the aged
- Issues and problems in developed and developing countries
- Policies for the aged persons in developed and developing countries.

### **Unit-6: Readings and seminars -**

## REFERENCES

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- Greenhalagh S. (editor), Situating Fertility: Anthropology and Demographic Inquiry.  
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Sharma A. K. (2011) Population and Society,  
Concept publication, New Delhi.

Nag Moni (1997) Anthropology and Population: Problems and perspectives.  
In 'Biosocial Man' Don Brothwell (editor), London

Websites:

1: [www.census.gov](http://www.census.gov)

2: [www.prb.org](http://www.prb.org)

3: [www.unfpa.org](http://www.unfpa.org)

4: <http://www.un.org/en/development/desa/population>

5: <http://www.measuredhs.com>

## **6. AN-406:Growth and Nutrition**

- Optional Course – (4 credits).

The course provides basic understanding of the concepts involved in the patterns of child growth and development; and approaches, methods and techniques involved in the study of the child growth. The course provides basic knowledge about nutrition and promotes awareness about malnutrition, under-nutrition, over-nutrition, nutritional deficiencies, birth weight variations and other problems related to growth development and nutrition. Information about various government nutrition programs in India will also be given.

### **At the end of the course the students are expected to:**

- i. Understand the patterns of human growth and various stages of growth.
- ii. Understand the Anthropological approach to nutrition
- iii. Understand impact of nutrition on growth and development and maturity
- iv. Estimate the requirement of nutrients and energy during growth and development
- v. Evaluate the impact of malnutrition on various ethnic groups in order to help governmental organizations to implement various developmental schemes
- vi. Discuss the role of various governmental nutrition programs in India
- vii. Understand the multifarious causes of nutritional problems and relevance of anthropological approaches for alleviating the same

### **Unit 1: Human Growth and Development**

- Definition, history of growth studies, Difference between Growth and Development.
- Patterns of Growth: Infancy, Childhood, Juvenile, adolescence, Adulthood and senility,
- Human Growth curves;
- Methods and techniques of growth studies: Cross sectional, longitudinal and mixed longitudinal.
- Anthropometric.
- Photogra-metric and roentgeno-metric.

### **Unit 2: Factors Affecting Growth**

- Genetics of growth;
- Heredity and environment;
- Concept of age: chronological, skeletal, dental and morphological;
- Changing human growth patterns, secular trend;
- Effects of agricultural intensification, industrialization, modernization, migration and urbanization.
- Bodily Maturity, strength and physical fitness, Prediction of Adult Height

### **Unit 3: Nutrition and Government programmes**

- Basic terms and concepts: nutrition, nutrients, malnutrition, under nutrition, wasting and stunting over-nutrition, obesity;
- Types, functions and uses of nutrients.
- Deficiency: nicotinic acid deficiency, vitamin C deficiency, vitamin D deficiency.
- Various Governmental programmes:  
ANP, ICDS, SNP, Mid-day Meal Programme, Vitamin A Prophylaxis Programme, Goiter Control Programme;

### **Unit 4: Special Problems Related to Growth and Nutrition**

- Groups at risk: infants, pregnant and lactating mothers,
- Birth Weight Variations- Low Birth Weight;
- Fetal origin of Chronic Diseases in old age, Chronic illness and disease

### **Unit 5: Abnormal Growth**

- Abnormal growth; Monitoring abnormal growth
- Growth failure (screening);
- Surveillance during famine and war
- Remedial measures to control abnormal growth
- Causes of abnormal growth
- Genetics of abnormal growth
- Infections in childhood and effects on growth eg. Diarrhea, dysentery, dehydration, amoebiasis, respiratory infection, pneumonia, measles, chicken pox, worm infestation, skin infections, fever, TB and AIDS

### **Unit 6: Determinants of Nutritional Levels and Nutrition Education**

- Anthropometric, Clinical and biochemical indicators of nutrition, Health Diet and Nutrition
- Standard reference values of growth and nutritional status among man and woman
- Health and nutrition education- at household and community level
- Nutrition during old a

### **Unit – 7 Reading and Seminar Topics.**

## References

- Gopaldas&Sheshadri 1984 Nutrition Monitoring and Assessment, New Delhi, Oxford University Press.
- Jelliffe, D.B. 1966 The Assessment of the Nutritional status of the community, WHO Geneva
- Jelliffe, D.B. 1986 Community Nutritional Assessment with special Reference to less technically developed countries, Oxford University Press.
- Park & Park 1994 Text book of Preventive and Social Medicine, MessersBanasasidasBhanotPublishers,Jabalpur.
- Shanti, Ghosh 1997 Nutrition and Child Care- A Practical Guide, Jaypee , Brothers, Medical Publishers P. Ltd. New Delhi.
- Stanley, J. & others 1998 The Cambridge Encyclopedia of Human Growth and Development, Cambridge University Press
- Tanner, J.M. 1962 Growth at Adolescence, Blackwell Scientific Publication, Oxford.
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- Williams S.R. 1974 Essentials of Nutrition and Diet Therap, The C.V. Mosby Co. USA Diet, Nutrition and The Prevention of Chronic Diseases Report of a WHO Study Group. Geneva
- Ronald S. Illingworth 1992. The Normal Child Some problems of the early years and their treatment Churchill Livingstone, New York (10<sup>th</sup> ed.)
- Jane B. Morgan and John W.T. Dickerson. 2003 Nutrition in Early Life. John Wiley& Sons England.

## **7. AN-407:Medical Genetics**

- Optional Course– (4 credits).

The course highlights the medical and social aspects of inherited and genetic diseases, defects and disorders. This knowledge with further input from anthropological theories, methods and techniques, would become an effective tool in the hands of Medical Anthropologists.

### **At the end of the course the students are expected to:**

- i. Understand the medical, epidemiological and social aspects of inherited/ genetic – diseases/defects/ disorders from public health point of view.
- ii. Understand the difference between medical and anthropological approaches in studying genetics.
- iii. Understand the basics of genetic engineering, genetic counseling and approach of people towards medical genetics.
- iv. Asses the advantages and other socio-cultural implications of genetic engineering and of the genome project.
- v. Relate the gene behavior with the social and demographic structure and behavior ofpopulations (consanguinity, inbreeding).
- vi. Apply the inputs from anthropological theories, methods and techniques, for better implementation of various preventive programs.
- vii. Understand clinical research to tackle dreaded genetic diseases.
- viii. Understand development of disease specific tools for detection.

### **Unit-1: Introduction to medical genetics**

- Meaning and Scope
- Relation to medicine, human genetics, and medical anthropology
- Genetic diseases and its causes
- Human attitude towards disease and disability

### **Unit-2: Methods of detection of disorders**

- Techniques of pedigree construction and analysis
- **Karyotyping**
- Prenatal diagnosis/screening for genetic diseases

- Ante-natal and neo-natal screening for genetic diseases
- Advance medical genetics and genetic engineering

### **Unit-3: Genetic Disorders**

- Sex-linked inheritance
- Autosomal dominant and recessive disorders
- X-linked Disorders
- Y-linked disorders
- Chromosomal aberrations- Translocation, deletion and duplications
- Syndromes and other genetic disorders-Down syndrome, Klinefelter and Turner syndrome, Trisomy-18 and Cry-do-Chat syndrome

### **Unit-4: Inborn Errors of Metabolism**

- Tay-Sachs disease
- Alkaptonuria, Galactosuria
- Phenyl-keton-urea (PKU)
- Albinism
- G6PD deficiency
- Genetics of complex disease – Cancer, Diabetes, Cardio-vascular diseases, obesity.

### **Unit-5: Genetic Counseling**

- Epidemiology of genetic diseases in India
- Consent and Confidentiality of the patients
- Regulations of genetic tests
- Genetic Screening
- Genetic Counseling of affected families
- Genetic Counseling for affected couples with the family members

## References

- Connor, J.M. & Ferguson Smith, M.A. Essential Medical Genetics, Blackwell Scientific Publications, Ferguson Smith, M.A. Oxford.
- Emery, A.E.H. 1983 Elements of Medical Genetics, Churchill Living stone, Edinburg.
- Thompson, J.S. 1986 Genetics in Medicine , W.B. Saunders Co., Toronto
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- Wiener A.S. 1943 Blood groups and Transfusion, 3<sup>rd</sup> ed. C.C. Thomas, Springfield II
- Jepsen, G.L. Simpson, G. G. and Mayr E. (eds.) 1949 Genetics, Paleontology & Evolution, Princeton, Princeton university Press
- Roberts, J.A. Franser 1940 An Introduction of Medical Genetics , New YArk, Columbia University Press
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- Dobzhansley, Th. 1941 Genetics and the origin of Species, 2<sup>nd</sup> ed. Colombia University Press, New York
- Wright, S. 1932 The Roles of Mutation, Inbreeding crossbreeding and selection in Evolution, Brooklyn Botanical Garden, Brooklyn, New York.

Websites: <http://www.ncbi.nlm.nih.gov/>

## **8. AN-408:Molecular Anthropology -**

- Optional Course – (4 credits).

This course will focus on theory and problems in emerging field of Molecular Anthropology. The course will introduce the basic methods and premises of the field and will also highlight the current findings.

### **At the end of the course the students are expected to:**

- i. Know the complete picture of human evolution.
- ii. Understand DNA databases and DNA banking of different ethnic communities.
- iii. Assess the impact of genetic changes on population structure.
- iv. To know migration of populations based on mitochondrial, y-chromosomal and nuclear haplotypes.
- v. Understand various kinds of genetic mutations, variations and environmental influences on genetic basis of man.
- vi. Study the genetic profile of various ethnic groups.
- vii. Understand the comparative study of the fossilized material and modern man at molecular level.
- viii. Apply modern techniques of dealing with untreated genetic disorders with the help of disease oriented therapy.

### **Unit-1: Basic Molecular Genetics**

- Introduction to molecular anthropology and its relationship with other sciences
- Introduction to chromosomes and genes
- Structure of nucleotides (bases and codons)
- Sex and Autosomal DNA
- mtDNA
- Role of sex chromosome in sex determination

### **Unit-2: Red Cell Morphology**

- Basic hematological techniques
- Cellular classification
- Sub cellular organelles
- Macromolecules
- Macromolecular assemblies

### **Unit-3: Protein Synthesis, Structure and functions**

- Protein analysis

- Aspects of protein synthesis
- Mechanism of protein synthesis

#### **Unit-4: Human DNA and RNA**

- History of DNA
- Coding and non-coding DNA and RNA
- Structure of nucleic acid
- Chemical and Physical properties of nucleic acid
- Function of RNA
- DNA supercoding

#### **Unit-5: DNA Replication, Damage, Repair and Recombination**

- DNA Replication: An overview
- Eukaryotic DNA replication
- Mutagenesis
- DNA Damage
- DNA Repair
- DNA Recombination

#### **Unit-6: Molecular Evolution and Genome**

- Oparins Theory of the Origin of life
- Evolution of DNA, RNA and Protein sequences
- DNA polymerases for sequencing DNA
- Use of PCR in genetic engineering and medical diagnosis
- Human Genome Project.

#### **References:**

- |  |      |   |
|--|------|---|
| A.G. Mclennan, A.D. Bates<br>& MRH White | 1998 | Molecular Biology Bios Scientific Publications,<br>Oxford UK  |
| Victor A McKwrick                        | 1972 | Human Genetics<br>Prentice Hall of India, Pvt. Ltd. New Delhi |

## **9. AN-409:Molecular Anthropology Practical -**

- Optional Course – (4 credits).

This practical course will focus on the basic molecular biology methods and laboratory techniques used.

### **At the end of the course the students are expected to:**

- i. Thoroughly understand the workings of molecular anthropology laboratory, sterile techniques etc.
- ii. Study and standardize various protocols for various steps.
- iii. Be able to isolate DNA from blood and other body tissues.
- iv. Carry out electrophoresis, PCR , RFLP etc.
- v. Understand the bio-informatics.

### **Unit-1: Genetic Markers**

- Introduction to instruments
- Hemoglobin quantification (Sahali's method)
- Sugar detection (automatic method- Johnson instrument)
- Blood pressure- systolic and diastolic

### **Unit-2: DNA extraction and DNA quantification**

- Phenol-chloroform,
- Salt extraction (TKM1) and
- Sucrose method (SSC)
- DNA quantitation by spectrophotometer
- Gel electrophoresis
- PAGE electrophoresis

### **Unit-3: Different Types of PCR technique**

- PCR amplification
- Mt-DNA
- Restricted Fragment Length Polymorphism
- Beta-Globin

### **Unit-4: DNA Analysis**

- DNA sequencing
- Procedure for sequencing
- Sequence editing

**10. AN-410: Dissertation –(Part – II) –**  
- Compulsory Course – (5 credits).

Each student would continue Part – II – dissertation under the supervision of the assigned faculty member. In continuation of Dissertation – Part – I, the students would undertake extensive field-work for data collection. After completion of data collection, the students would organize and analyze the data. This would further lead to the compilation of final report. At the end of the semester, each student would present the final report in a seminar, before final submission.

**At the end of the course, the students are expected to understand about**

- i. the process of data collection;
- ii. organization and analysis of data;
- iii. compilation of final report;
- iv. presentation of the final report.