

B.A./B.Sc. IV Semester
Core-10: Research Methods

Paper Code: LS/ANT/C-410L

Credit- 4

Unit I: Field work tradition in Anthropology

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

Unit II: Research Design

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

Unit III: Tools and techniques of data collection

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

Unit IV

Chapterization, preparing a text for submission and publication, concepts of preface, notes (end and footnotes), glossary, prologue and epilogue, appendix, bibliography (annotated) and references cited, review and index. Similarities and differences between qualitative and quantitative data analysis;

Suggested Reading

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

B.A./B.Sc. IV Semester
Practical in Research Methods

Paper Code: LS/ANT/C-410P

Credit- 2

Practical Credit- 2

1. Construction of Genealogy.
2. Observation: Direct, Indirect, Participant, Non-participant, Controlled
3. Questionnaire and Schedule, Interview- Unstructured, Structured, Key informant interview, Focussed Group Discussion
4. Case study and life history
5. Project report writing- preparation of research problem, study design, data collection techniques, analysis and report writing based on somatometric, dermatoglyphic and serological data or social problem.

Suggested Reading

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

B.A./B.Sc. V Semester

Core-11

Human Population Genetics

Paper Code: LS/ANT/C-511L

Credit- 4

Unit I. Essentials of Genetics

Landmarks in the history of genetics, principles in human genetics, Mendelian inheritance (single factor and multifactorial inheritance, polygenic inheritance), Non- Mendelian inheritance (multiple allelism, Co-dominance; sex linked, epistasis; penetrance and expressivity; Cytoplasmic inheritance).

Unit II. Ecological Genetics and Polymorphism

Phenotypic & genotypic polymorphisms, transient polymorphism, balanced polymorphisms,

Unit III: Hardy-Weinberg principle

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

Unit IV: Mechanism for dynamics in Gene Frequency

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

Unit V: Population structure and admixture in human populations

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

Suggested Readings

1. Brooker R.J. (2012). Genetics: analysis & principles. The McGraw-Hill Companies, Inc 4th ed.
2. Cavalli-Sforza, L.L. and Bodmer, W.F (1971). The Genetics of Human Population. San Francisco: Freeman
3. Cooper DN and Kehrer-Sawatzki H. (2008). Handbook of Human Molecular Evolution. John Wiley & Sons, volume-2.
4. Crawford MH (2007). *Anthropological Genetics Theory, Methods and Applications*. Cambridge University Press
5. Cummings M.R. (2011). Human Heredity: Principles and Issues. Ninth Edition. Brooks/Cole, Cengage Learning
6. Jobling, M.A. Hurlburt M. and Tyler-Smith C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. GS. NY
7. Lewis R. (2009). *Human Genetics: Concepts and Applications* 9th Edition. The McGraw-Hill Companies, Inc.
8. Patch C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group
9. Relethford J.H. (2012). *Human Population Genetics*. Wiley-Blackwell, USA
10. Snustad .D.P. and Simmons M.J. (2006). *Principles of Genetics*, Fourth Edition, John Wiley & Sons USA, Hoboken NJ
11. Strachan T, Read A.P. (2004). *Human Molecular Genetics*. Garland Science/Taylor & Francis Group.
12. Vogel F. and Motulsky A.G. (1996). *Human Genetics*. Springer, 3rd revised edition.

16. Klepinger LL (2006). Fundamentals of Forensic Anthropology. Wiley-Liss Publications
17. Kumar RK and Kapoor AK. (2009). Management of a Primitive Tribe: Role of Development Dynamics. Academic Excellence, Delhi.
18. Mehrotra N and Patnaik SM. (2008). Culture versus Coercion: The Other Side of Nirmal Gram Yojna, Economic and Political weekly. pp 25-27.
19. Mishra RC (2005). Human Rights in a Developing Society, Mittal Publications, Delhi.
20. Noaln RW. (2002). Anthropology in Practice: Building a Career outside the Academy. Publishing Lynne Reinner.
21. Patnaik SM (1996). Displacement, Rehabilitation & Social Change. Inter IndiabPublications, New Delhi.
22. Patnaik SM (2007). Anthropology of Tourism: Insights from Nagaland. The Eastern Anthropologist. 60(3&4):455-470
23. Srivastav OS (1996). Demographic and Population Studies. Vikas Publishing House, India
24. Vidyarthi LP and BN Sahay (2001). Applied Anthropology and Development in India, National Publishing House, New Delhi.
25. Vidyarthi LP. (1990). Applied Anthropology in India – Principles, Problems and Case Studies. Kitab Mahal, U.P.
26. Vidyarthi V (1981). Tribal Development and its Administration. Concept Publishing Company, New Delhi.

B.A./B.Sc. VI Semester

Core-13

Applied Biological Anthropology

Paper Code: LS/ANT/C-613L

Credit- 4

UNIT-1

Medical Anthropology: Meaning and Scope, Theories of Medical Anthropology: Socio-Cultural perspective, Bio-cultural perspective, Critical Medical Anthropology.

UNIT-2

Concept and Interpretation of Health, Illness and Disease: Socio-cultural and Bio-medical perspectives, Medical Pluralism and Syncretism, Ethno-medicine, Medical systems in India, Tribal health and ethno medicine.

UNIT-3

Human nutrition: food, diet, nutrition, and metabolism (definitions only); the basic nutrients micro-, and macronutrients—their sources and utility;

UNIT-4

Nutritional Anthropology: concept and definition. Nutrition policy in India, Child health and nutrition programmes in India.

UNIT-5

Malnutrition: over-and under-nutrition, malnutrition—their evaluation and general consequences. Nutritional adaptation in man

DSE-13. Demographic Anthropology

Theory

Unit I: Demographic Anthropology

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

Unit II: Population Theories

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

Unit III: Tools of Demographic Data

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

Unit IV: Population of India

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

Unit V: National policies

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

Practical

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

Suggested Readings

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

DSE 14: Applied Anthropology and Tribal Development

- Unit I:** Applied Anthropology: Concept, Definition, Its Scope and History. Applied and Action Anthropology, Development Anthropology and Policy Perspective, Applied Physical Anthropology and Human Genetics.
- Unit II:** The concept of Tribal Development: Tribal Policy during pre-and-post Independence era; Approaches to Tribal development; Various Committees and Commissions on Tribal Development; Role of Anthropologists in Tribal Development.
- Unit III:** Constitutional Provisions and Safeguards for Scheduled Tribes, Administration of Scheduled Areas; Functioning of Tribes Advisory Council; Tribal Welfare programmes through Five Year Plans.
- Unit IV:** Tribal Sub Plan: ITDA, MADA, Cluster, DTDP and Micro project; Financial and Administrative arrangements for Tribal Development; External aided development projects, challenges & opportunities: few case studies.
- Unit V:** Barriers and Stimulants for Tribal Development; Contribution of Anthropology to Government and Development planning in India.

Practical

Students need to visit any local tribal community for at least five days and critically study the implementation of different public policy of the government. They also need to submit a final project report on it.

Ability enhancement elective (skill based) Course
Credits: Any two papers = 2*2= 4

AEC-I : Statistical Package for Social Science (SPSS)

Paper Code- LS/ANT/SEC-301

Credit-2

Presentation and summarization of data: Types of variables and Data presentation (tabulation, illustration)

Test of Inference: Chi-Square Test, Students't' test, ANOVA, Z score.

Correlation: Coefficient of Co-variation, Coefficient of Correlation

Practical

Descriptive statistics & Solving Statistical problems: Measures of Central Tendency, Frequency Distribution: Histogram, Bar graph, Pie Chart, Polygraph

Suggested Readings

1. B.L. Agarwal. Basic Statistics. New Age International Publishers. Fourth Edition, 2006.
2. Fox and Alan. Elementary Statistics in Social Research. Gian Publishing House,
3. Sunder Rao, P.S.S. et al. An introduction to Biostatistics & Research Method. New Arrivals-PHI
4. Wackerly Dennis D, Mendelhall III, Wiliam et al. Mathematical Statistics with application Duxbury Press, Pacific Grove.
5. Gaur AS, Gaur SS. Statistical Methods for Practice and Research. A guide to data analysing using SPSS. SAGE Response, New Delhi, India, 2009.
6. Sunder Rao, P.S.S. et al. An introduction to Bio-statistics & Research Method. New Arrivals-PHI.
7. Conover W.J. Practical Nonparametric Statistics. Third Edition. Wiley India (P) Ltd. Ansari Road, Daryaganj, New Delhi. 1999.

AEC-II: Museum Anthropology

- Unit I: Introduction:** Definition and scope of Museum; History of museums / Museum Movement in India, Functions of Museums ; Museum Anthropology
- Unit II: General principle of documentation and preservation,** Exhibition equipments, Principles of design communication and interpretation
- Unit III: Museum Management and Administration:** Location, Administrative Framework, Budget, Work Planning and Museum Marketing.
- Unit IV: Museum Education and Research:** Educational Responsibilities of the Museum, Education of Children/Adults/Challenged and Special groups, Research in the Museums, museum library and exhibition
- Unit V: Computer Application in Museum:** Computer in museums. Use of computer in exhibition designing/exhibits, Use of different software, websites, multimedia etc. Retrieval of information about important museums of the world. Communication through E-mail and conferencing about the museums and its activities of the world.

Suggested Readings

1. Nigam, M L – Fundamentals of Museology
2. Ghosh, D P- Studies in Museology
3. Basu, J N- Indian Museum and Movement
4. Morley, Grace – Museum Today
5. Nigam, M L- Organization of Museum
6. Baxi, S. and Dwivedi V.P: Modern Museums: Organisation and Practice in India.
7. Bhatnagar, A- Museum, Museology and New Museology
8. Biswas, T. K- Museum and Education
9. Biswas, T. K- Museum and Adult Education
10. Bedekar, V.H- New Museology for India

Practical

Students need to visit any nearby museum and study the different aspects of museum.

SEC-III

Tourism Anthropology

Paper Code- LS/ANT/SEC-304

Credit-2

Unit I: Tourism- aspects and prospects, anthropological issues and theoretical concerns, tourist as ethnographer; pilgrimage and Authenticity Issues

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

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

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

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

Suggested Readings

1. Chambers E. (2000). *Native Tours: The Anthropology of Travel and Tourism*. Prospect Heights: Waveland.
2. Crick M. (1995). *The Anthropologist as Tourist: An Identity in Question*. In Lanfant MF, Allcock JB, Bruner EM (eds.) *International Tourism: Identity and Change*. London: Sage. pp. 205-223.
3. Dann GMS, Nash D and Pearce PL. (1988). *Methodology in Tourism Research*. *Annals of Tourism Research*. 15:1-28.
4. Gmelch SB. (2004). *Tourists and Tourism: A Reader*. Long Grove: Waveland.
5. Graburn NHH. (1977). *Tourism: The Sacred Journey*. *Hosts and Guests: The Anthropology of Tourism*. Valene L. Smith, ed. Philadelphia: University of Pennsylvania Press. Pp. 33-47.
6. Dann G. (2002). *The Tourist as a Metaphor of the Social World*. Wallingford: CAB International.
7. Nash D. (1996). *Anthropology of Tourism*. New York: Pergamon.
8. Kirshenblatt-Gimblett B.(1998). *Destination Culture: Tourism, Museums, and Heritage*. University of California Press.
9. Lippard LR. (1999). *On the Beaten Track: Tourism, Art and Place*. New Press.
10. Picard M and Wood R. (1997). *Tourism, Ethnicity, and the State in Asian and Pacific Societies*. University of Hawai Press.
11. Crick M. (1994). *Anthropology and the Study of Tourism: Theoretical and Personal Reflections*. In Crick M (eds.). *Resplendent Sites, Discordant Voices: Sri Lankans and International Tourism*. Chur, Switzerland: Harwood Publishers.
12. Wood R. (1997). *Tourism and the State: Ethnic Options and the Construction of Otherness*. In Picard and Wood *Tourism, Ethnicity and the State in Asian and Pacific Societies*. University of Hawai Press.

B.A./B.Sc. V Semester

Practical on Human population Genetics

Paper Code: LS/ANT/C-511P

Credit- 2

Practical Credit- 2

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

Suggested Readings

1. Brooker R.J. (2012). Genetics: analysis & principles. The McGraw-Hill Companies, Inc 4th ed.
2. Cavalli-Sforza, L.L. and Bodmer, W.F (1971). The Genetics of Human Population. San Francisco: Freeman
3. Cooper DN and Kehrer-Sawatzki H. (2008). Handbook of Human Molecular Evolution. John Wiley & Sons, volume-2.
4. Crawford MH (2007). *Anthropological Genetics Theory, Methods and Applications*. Cambridge University Press
5. Cummings M.R. (2011). Human Heredity: Principles and Issues. Ninth Edition. Brooks/Cole, Cengage Learning
6. Jobling, M.A. Hurler M. and Tyler-Smith C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. GS. NY
7. Lewis R. (2009). *Human Genetics: Concepts and Applications* 9th Edition. The McGraw-Hill Companies, Inc.
8. Patch C. (2005). *Applied Genetics in Healthcare*. Taylor & Francis Group
9. Relethford J.H. (2012). *Human Population Genetics*. Wiley-Blackwell, USA
10. Snustad .D.P. and Simmons M.J. (2006). *Principles of Genetics*, Fourth Edition, John Wiley & Sons USA, Hoboken NJ
11. Strachan T, Read A.P. (2004). *Human Molecular Genetics*. Garland Science/Taylor & Francis Group.
12. Vogel F. and Motulsky A.G. (1996). *Human Genetics*. Springer, 3rd revised edition.

B.A./B.Sc. VI Semester

Practical in Applied Biological Anthropology

Paper Code: LS/ANT/C-613P

Credit- 2

- Unit I:** Techniques of taking basic Somatometric Measurements: Height, Weight, Waist circumference, Hip circumference;
- Unit II:** Estimation of Body Mass Index (BMI), Waist Hip Ratio (WHR), Waist Height Ratio (WHTR) and classification of obesity.
- Unit III:** Skinfold Measurement: Bicep, Tricep, Sub-scapular and Supra-iliac skinfold.
- Unit IV:** Estimation of Adult Body Composition: Percent Body Fat (PBF), Body Mass Abdominal Index (BMAI), Body Adiposity Index (BAI);
- Unit V:** Subcutaneous Fat; Visceral Fat; Skeletal Muscle Percentage

Suggested Readings

1. Singh I. P. & Bhasin M. K. (1989) A Laboratory Manual on Biological Anthropology. Kamla-Raj Enterprises, Delhi.
2. Mukherjee, D., Mukherjee, D., & Bharati, P. (2009) Laboratory Manual for Biological Anthropology. Asian Book Private Limited, New Delhi.
3. Das B.M. and Deka R. Physical Anthropology Practical. Kitab Mahal, Allahabad, U.P.
4. Ulijaszek S.J., and Mascie-Taylor C.G.N. Anthropometry: the individual and the population.
5. Das, B. M. Outlines of Physical Anthropology. New Delhi.
6. Galton F. (1884) Anthropometric Laboratory. London (Also in J. Anthropol. Inst., (Lond.) 1884, 14, 205).
7. Foster, G.M. and B.G. Anderson (1978) Medical Anthropology. New York: John Wiley and Sons
8. Good Bryon. (1994). Medicine, Rationality and Experience. Cambridge, England: Cambridge University Press
9. McElroy, A. and P.K. Townsend (1979) Medical Anthropology in Ecological Perspective. Boulder, CO: Westview Press
10. Singer, M. and H.A. Baer (1995) Critical Medical Anthropology. Amityville, NY: Baywood Press
11. Joshi, P.C. and A. Mahajan (1990) Studies in Medical Anthropology (eds.). New Delhi: Reliance Publishing House

M.A./M.Sc. IInd Semester

Course Credit: 4

Paper Code: ANT-M201

Full Marks: 100

Human Genetics

(60+40)

- Unit I:** Human Genetics: Mendel's Law of Inheritance and its application to man; Patterns of Inheritance: Autosomal, sex-linked traits and extra nuclear inheritance; Methods of studying heredity: twin method and pedigree method.
- Unit II:** Population Genetics: Hardy-Weinberg Law and its application to human population; Genetic Polymorphism: Balanced and Transient.
- Unit III:** Cytogenetics: Structure, properties and function of chromosome; Karyotypes, Banding Techniques, Chromosomal aberrations in Man.
- Unit IV:** Structure and function of a Cell; Cell Division: Mitosis & Meiosis; Structure and function of DNA & RNA, Replication of DNA, Recombinant DNA.
- Unit V:** Applications of human genetics: Pre-natal diagnosis and genetic counselling. Social ethical issues in human/medical genetics.

Suggested Readings

1. Harris H. Human Biochemical Genetics. Cambridge University Press. 2010.
2. Relethford JH. Human Population Genetics. A John Wiley & Sons, Inc., Publication. 2012.
3. Steve Jones, Robert Martin and David Pilbeam (Edt.) The Cambridge Encyclopedia of Human Evolution. Cambridge University Press, 1997.
4. Grine FE, Fleagle JG, Leakey RE. The First Humans Origin and Early Evolution of the Genus Homo. Springer, 2006.
5. Reddy VR. Current Trends in Human Genetics and Physical Anthropology. Dr (Mrs) V. Indira, Vidyanagar, Tirupati, Andhra Pradesh, India. 2012.
6. Templeton AR. Population Genetics and Microevolutionary Theory. John Wiley & Sons, Inc., Hoboken, New Jersey. 2006.
7. Fleagle JG. Primate Adaptation and Evolution. 2nd Edition, Elsevier Academic Press, 1999.
8. Harrison GA, Tanner JM, Pilbeam DR, Baker PT. Human Biology. An Introduction to Human Evolution, Variation, Growth and Adaptability. Oxford Science Publications, Oxford University Press, 2004.
9. Jobling, MA Hurler, M and Tyler-Smith, C. Human Evolutionary Genetics, Origins, Peoples and Disease. Garland Science, New York, 2004
10. Strachan, T and Read, AP. Human Molecular Genetics. Garland Publishing Inc, New York, 2003.
11. Templeton, AR. Population Genetics and Microevolutionary Theory. Wiley Liss, New York, 2006.
12. Mange EJ and Mange AP. Basic Human Genetics. Sinauer Associates Inc.

M.A./M.Sc. IInd Semester
Paper Code: ANT-M202
Bio-Social Problems of Indian Population

Course Credit: 4
Full Marks: 100
(60+40)

- Unit I:** Problem of Population Growth in India, Demographic Transition in India, Demographic Consequences of Family Planning and Family Welfare, Population Policy in India.
- Unit II:** Problems of Poverty and Unemployment, Social Discrimination and Inequality; Universalization of Education.
- Unit III:** Problems of Hunger and Malnutrition in India; Obesity and Nutritional Deficiency diseases; National Rural Health Mission of India: National Urban Health Mission, Problems of Communicable and Non-Communicable diseases in India, Infant Mortality and Maternal Mortality problem in India; Occupational Health Hazards.
- Unit IV:** Bio-Social Problem of Ageing and Aged, HIV/ AIDS, Alcoholism and Drug Abuse in India.
- Unit V:** Global Warming and Climate Change and its impact on India, Environment Pollution: Air, Water and Land: Principles and Policies.

Suggested Readings:

1. Gaya Pandey - Bio-Cultural Evolution
2. Indrani Basu Roy – Anthropology: The Study of Man
3. Das, N.K.- Industrialization and Tribal Society
4. Helen R. Sekar- Child Labour Legislation in India
5. Asha A. Bhende and Tara Kanitkar- Principles of Demography in India
6. David G. Mandelbaum- Society in India
7. Yogesh Atal. Understanding Indian Society
8. VLS Prakasa Rao. Urbanization in India (Spatial Dimensions)
9. K Srinivasan, PC Saxena and Tara Kanitkar. Demographic and Socio-Economic Aspects of The Child in India.
10. Sophie Baker. Caste At Home in Hindu India.
11. P. Sudhakar Reddy, V Gangadhar. Indian Society (Continuity Change and Development)
12. Y M Verma. Problems of Tribal India
13. KR Sharma. Educational Life Style of Tribal Students (A Study of Secondary Schools in Madhya Pradesh)
14. AN Bharadwaj. Problems of Scheduled Castes and Scheduled Tribes in India.
15. Sushama Sahay Prasad. Tribal Woman Labourers: Aspects of Economic and Physical Exploitation.
16. Renuka Pamecha. Elite in a Tribal Society.

M.A./M.Sc. IInd Semester
Paper Code: ANT-M206
Practicals in Human Genetics

Course Credit: 4
Full Marks: 100
60 + 40

1. Blood Group: Blood Typing–Detection of complete and incomplete antibodies with reference to Rh (including subgroups), MNSs, Kell, and Lewis blood group systems.
2. ABO (Subgroups), MN and Rh Blood group Systems
3. PTC
4. Colour Blindness
5. Dermatoglyphics
 - i. Finger Print
 - ii. Palmer Print
 - iii. Planter Print

Practical Record

Viva Voce

Suggested Reading

1. B.L. Agarwal. Basic Statistics. New Age International Publishers. Fourth Edition, 2006.
2. Fox and Alan. Elementary Statistics in Social Research. Gian Publishing House,
3. Sunder Rao, P.S.S. et al. An introduction to Biostatistics & Research Method. New Arrivals-PHI
4. Wackerly Dennis D, Mendelhall III, Wiliam et al. Mathematical Statistics with application Duxbury Press, Pacific Grove.
5. Gaur AS, Gaur SS. Statistical Methods for Practice and Research. A guide to data analysing using SPSS. SAGE Response, New Delhi, India, 2009.
6. Sunder Rao, P.S.S. et al. An introduction to Bio-statistics & Research Method. New Arrivals-PHI.
7. Conover W.J. Practical Nonparametric Statistics. Third Edition. Wiley India (P) Ltd. Ansari Road, Daryaganj, New Delhi. 1999.

(Elective Papers)

M.A./M.Sc. IVth Semester
Paper Code: ANT-M403A
Population Studies

Course Credit: 4
Full Marks: 100
(60+40)

- Unit I:** Meaning, Definition and Scope of Population Studies, Theories of Population: Pre-Malthusian, Malthusian and Post-Malthusian theory, Theory of Demographic Transition, Factors contributing to Population growth, Anthropological Demography.
- Unit II:** Basic Demographic Variables, Sex Ratio, Fertility, Mortality, Migration, Morbidity; Sources of Population Data: Census, NFHS, NSS, DHS, International Year Book.
- Unit III:** Measures of Fertility, Measures of Mortality, Prenatal and Postnatal deaths, Differential Fertility, Differential Mortality, Migration and Differential Migration, Mating systems, Inbreeding and its Consequences, Intrinsic Rate of Natural Increase, Culture and Fertility, Fertility and Fecundity.
- Unit IV:** Demographic profile of India; Growth and Distribution of Tribal Population in India, Population problems with special reference to India; National Population Policy, Infant and Child Mortality in India, Maternal Mortality in India.

Suggested Readings

1. Agarwal, S. N. India's Population Problem.
2. Arora, Gomti. Social Structure & Fertility.
3. Bhenda, Asha, A. & Kanetkar Tara. Principles of Demography.
4. Bose, Ashish. India's Urbanization 1901-2001.
5. Chand, Gyan. Population in Perspective.
6. Council for Social Development Publication. Aspects of Population Policy in India.
7. Davis-Kingsley. The Population of India and Pakistan.
8. Driver, E. R. Differential Fertility in Central India.
9. Kesarwani, Baburam. Fertility and Differential Fertility.
10. Kumarg, T. K. Vimala. Infant Mortality among the Fishermen.
11. Mahadevan, K. Fertility and Mortality.
12. Mahadevan, K. Sociology of Fertility.
13. Mitra, Ashok. India's Population Vol. I & II.
14. Sandhya, S. Socio-Economic and Cultural Correlates of Infant mortality.
15. Senapati R.N, P.K. Nayak, P.K.Das. Population profile of Orissa.
16. Sinha, V. Dynamics of Indian Population Growth.
17. Srivastava, O. Demography.
18. Donald J. Bogue. Principles of Demography.
19. John H. Relethford. Human Population Genetics.
20. Eric Abella Roth. Culture, Biology and Anthropological Demography.
21. G.A. Harrison, J.M. Tanner, D.R. Pilbeam, P.T. Baker. Human Biology.

- Unit I:** Preparation of schedules for collection of demographic data.
- Unit II:** Preparation of flow chart and graphic presentation
- Unit III:** Compilation and presentation of data on population studies (from secondary data like Census):
(i) Age composition (ii) Sex composition (iii) Age ratio (iv) Fertility measures
(v) Mortality measures
- Unit IV:** Pictorial comparison of health indicators
- Unit V:** Interpretation and Preparation of Report Writing, APA Style of writing references.

Practical Record

Viva Voce

Suggested Readings

1. Mahadevan, K. Fertility and Mortality.
2. Agarwal, S. N. India's Population Problem.
3. Arora, Gomti. Social Structure & Fertility.
4. Bhenda, Asha, A. & Kanetkar Tara. Principles of Demography.
5. Bose, Ashish. India's Urbanization 1901-2001.
6. Srivastava, O. Demography.
7. Chand, Gyan. Population in Perspective.
8. Sandhya, S. Socio-Economic and Cultural Correlates of Infant mortality.6. Council for Social Development Publication. Aspects of Population Policy in India.
9. Davis-Kingsley. The Population of India and Pakistan.
10. G.A. Harrison, J.M. Tanner, D.R. Pilbeam, P.T. Baker. Human Biology.8. Driver, E. R. Differential Fertility in Central India.
11. Kesarwani, Baburam. Fertility and Differential Fertility.
12. Kumarg, T. K. Vimala. Infant Mortality among the Fishermen.
13. Mahadevan, K. Sociology of Fertility.
14. Mitra, Ashok. India's Population Vol. I & II.
15. Senapati R.N, P.K. Nayak, P.K.Das. Population profile of Orissa.
16. Sinha, V. Dynamics of Indian Population Growth.
17. Donald J. Bogue. Principles of Demography.
18. John H. Relethford. Human Population Genetics.
19. Eric Abella Roth. Culture, Biology and Anthropological Demography.

M.A./M.Sc. IVth Semester
Paper Code: ANT-M406B
Field Work Dissertation

Course Credit: 6

Full Marks: 200

All the students of PG (M.A./M.Sc. IVth & Integrated Xth Semester) are required to undertake field work in rural/ tribal/ urban areas of Chhattisgarh state for a period of 21 days for preparation of dissertation under the guidance of teacher(s). The topic of the dissertation will be allotted by the concerned teacher (Supervisor).

Dissertation	120 marks
Seminar Presentation & Viva-Voce	80 marks