

**Three/Four Yr. Degree Course
(Single Major & Double Minor with Research)
based on NEP-2020**

ANTHRPOLOGY



**(EFFECTIVE FROM SESSION 2026-27)
(BATCH: 2026-2029)**



SAMBALPUR UNIVERSITY
JYOTI-VIHAR, BURLA, SAMBALPUR, ODISHA-768019

The model curriculum and credit frame work for under graduate programmes as multiple entry and exit option with research and without research of National Education Policy-2020.

- I. **CERTIFICATE COURSE:** One Academic Year (First & Second Semester and Summer Vocational Course and Community Work) **44 CREDITS**
- II. **DIPLOMA COURSE:** Two Academic year (First, Second, Third & Fourth Semester and Summer Vocational Course and Community Work) **86 CREDITS**
- III. **3YR. DEGREE COURSE:** Three Academic Year (First, Second, Third, Fourth, Fifth & Sixth Semester and Community Work) **126 CREDITS**
- IV. **4YR. DEGREE COURSE (HONOURS):** Four Academic Year (First, Second, Third, Fourth, Fifth, Sixth, Seven & Eight Semester and Community Work) **166 CREDITS**
- V. **4YR. DEGREE COURSE (HONOURS WITH RESEARCH):** Four Academic Year (First, Second, Third, Fourth, Fifth, Sixth, Seven & Eight Semester and Community Work) **166 CREDITS**

Type of Course:

- I. **Major (Core-I):** is the subject of main focus and the degree will be awarded in that discipline.
- II. **Minor Stream (Core-II):** helps a student to gain a broader understanding knowledge beyond the major discipline. A student may gather 28 credits from a single subject
- III. **Multidisciplinary U.G. Programme (09 Credits):** Three introductory-level Multidisciplinary Course baskets are offered for students to choose any one from each semester outside of the subject/discipline/faculty: A group of related subject i.e., faculty (Arts/Commerce/Science). The student can opt three different subject/course for each semester examination.
- IV. **Ability Enhancement Course (AEC 08 Credits):** Student are required to achieve competency in a Modern Indian Language (MIL) and in the English language with special emphasis on language and communication skills (not literary skill). Literature and Linguistic courses shall be offered in major core and minor stream. In lieu of Odia, a student may opt for only Sanskrit, Hindi or Urdu.
- V. **Skill Enhancement Course (SEC 09 Credits):** A student has to opt the Skill Enhancement courses from the basket as per the subject available in the institution. The students can opt for any one course for each semester examination and these courses are aimed at imparting practical skills, hands-on training, soft skills, etc., to enhance the employability of students.

- VI. **Value Added Course (VAC 12 Credits):** The VAC course basket are prearranged for the students to choose for each semester's examination.
- VII. **Summer Internship/Apprenticeship/Summer Project (04 Credits with 120 Hours):** Community Engagement and Services/ Field work/ Internship programme is mandatory for all students of 4th Semester undergraduate Programmes of NEP-2020 carrying 4 credits which shall be completed in 120h (Students admitted in the session 2024-25 onwards) under affiliated colleges of Sambalpur University.
- A. Internship:** A course requiring students to participate in a professional activity or work experience or cooperative education activity with an entity external to the education institution, normally under the supervision of an expert of the given external entity. A key aspect of the internship is induction into actual work situations.
- Internships may be undertaken anywhere in India, subject to institutional approval and compliance with credit requirements.
 - Internships involve working with local industry, government or private organizations, business organizations, artists, crafts persons, NGOS, Private Sector organizations, Government / Public Sector institutions, Industries, MSMEs (Online or Offline) and similar entities to provide opportunities for students to actively engage in on-site experiential learning.
 - **Online / Digital Internship Opportunities:** Internship may also be undertaken in online or hybrid mode through recognized Government of India platforms, subject to institutional approval and fulfilment of credit requirements.
 - Students may undertake internships or field work through their own arrangement, subject to prior approval of the concerned HEI.
- B. Community Engagement and Services/ Field work:** Community Engagement activities shall be conducted through NSS. Students not enrolled under NSS may undertake community engagement projects / field work for 120h duration under the supervision of faculty members.
- After completion of Internship students will collect an internship completion certificate from the organization / competent authority.
 - **Submission of Report and Evaluation:** Students opted for Internship/ Community engagement projects/ Field work are required to submit a report to the Institution for evaluation. Supporting documents like feedback from the host Organisation, geotagged photos and other relevant documents should be submitted with the report.

Table-I: Course Table Structure for Certificate Course: Exit after first Academic Year**One Academic Year:** (1st & 2nd Semester and a Summer Vocational Course and Community Work)

Semester	Core-I	Core-II	Core-III	Multidisciplinary	AEC	SEC	VAC	Community Engagement & Field Work	Credit
I	2x4=8	1x4=4		1x3=3	1x4=4		1x3=3		22
II	2x4=8		1x4=4	1x3=3	1x4=4	1x3=3			22
Total	4x8=16	1x4=4	1x4=4	2x3=6	2x4=8	1x3=3	1x3=3		44

Table-II: Course Table Structure for Diploma Certificate Course: Exit after Second Academic Year**Two Academic Year:** (1st, 2nd, 3rd & 4th Semester and a Summer Vocational Course and Community Work)

Semester	Core-I	Core-II	Core-III	Multidisciplinary	AEC	SEC	VAC	Community Engagement & Field Work	Credit
I	2x4=8	1x4=4		1x3=3	1x4=4		1x3=3		22
II	2x4=8		1x4=4	1x3=3	1x4=4	1x3=3			22
									44
III	3x4=12	1x4=4		1x3=3			1x3=3		22
IV	3x4=12		1x4=4						20
									42
Total	10x4=40	2x4=8	2x4=8	3x3=9	2x4=8	1x3=3	2x3=6		86

Table-III: Course Table Structure for Three Years Degree Course with Single Major and Two Minor

Semester	Core-I	Core-II	Core-III	Multidisciplinary	AEC	SEC	VAC	Community Engagement & Field Work	Credit
I	2x4=8	1x4=4		1x3=3	1x4=4		1x3=3		22
II	2x4=8		1x4=4	1x3=3	1x4=4	1x3=3			22
									44
III	3x4=12	1x4=4		1x3=3			1x3=3		22
IV	3x4=12		1x4=4					1x4=4	20
									42
V	3x3=12	1x4=4				1x3=3	1x3=3		22
VI	2x4=8		1x4=4			1x3=3	1x3=3		18
									40
Total	15x4=60	3x4=12	3x4=12	3x3=9	2x4=8	3x3=9	4x3=12	1x4=4	126

Note: In case a student opts for NCC and clears 'C' certificate additional 16 credits shall be awarded and total credit shall be 126+16= 142 credits

Table-IV: Course Table Structure for Three Years Degree Course with Double Major

<i>Semester</i>	<i>Core-I</i>	<i>Core-II</i>	<i>Multidisciplinary</i>	<i>AEC</i>	<i>SEC</i>	<i>VAC</i>	<i>Community Engagement & Field Work</i>	<i>Credit</i>
I	2x4=8	2x4=8	1x3=3	1x4=4		1x3=3		26
II	2x4=8	2x4=8	1x3=3	1x4=4	1x3=3			26
								52
III	3x4=12	2x4=8	1x3=3			1x3=3		26
IV	3x4=12	2x4=8					1x4=4	24
								50
V	3x3=12	2x4=8			1x3=3	1x3=3		26
VI	2x4=8	2x4=8			1x3=3	1x3=3		22
								48
Total	15x4=60	12x4=48	3x3=9	2x4=8	3x3=9	4x3=12	1x4=4	150

Table-V: Course Table Structure for Fourth Year Honours without Research

<i>Semester</i>	<i>Core-I</i>	<i>Core-II</i>	<i>Core-III</i>	<i>Multidisciplinary</i>	<i>AEC</i>	<i>SEC</i>	<i>VAC</i>	<i>Community Engagement & Field Work</i>	<i>Credit</i>
I	2x4=8	1x4=4		1x3=3	1x4=4		1x3=3		22
II	2x4=8		1x4=4	1x3=3	1x4=4	1x3=3			22
									44
III	3x4=12	1x4=4		1x3=3			1x3=3		22
IV	3x4=12		1x4=4					1x4=4	20
									42
V	3x3=12	1x4=4				1x3=3	1x3=3		22
VI	2x4=8		1x4=4			1x3=3	1x3=3		18
									40
VII	4x4=16	1x4=4							20
VIII	4x4=16	1x4=4							20
Total	23x4=92	5x4=20	3x4=12	3x3=9	2x4=8	3x3=9	4x3=12	1x4=4	166

Table-VI: Course Table Structure for Fourth Year Honours with Research

<i>Semester</i>	<i>Core-I</i>	<i>Core-II</i>	<i>Core-III</i>	<i>Multidisciplinary</i>	<i>AEC</i>	<i>SEC</i>	<i>VAC</i>	<i>Community Engagement & Field Work</i>	<i>Credit</i>
I	2x4=8	1x4=4		1x3=3	1x4=4		1x3=3		22
II	2x4=8		1x4=4	1x3=3	1x4=4	1x3=3			22
									44
III	3x4=12	1x4=4		1x3=3			1x3=3		22
IV	3x4=12		1x4=4					1x4=4	20
									42
V	3x3=12	1x4=4				1x3=3	1x3=3		22
VI	2x4=8		1x4=4			1x3=3	1x3=3		18
									40
VII	3x3=12	2x4=8							20
VIII	2x4=8							Research 12	20
Total	20x4=80	5x4=20	3x4=12	3x3=9	2x4=8	3x3=9	4x3=12	16	166

COURSE AT A GLANCE (NEP-UG)

SUBJECT: ANTHROPOLOGY

ACADEMIC SESSION: 2026-29

CORE-I COURSE

Course Number	Semester	Course Title	Type of Paper P- Practical NP-Non- practical	Credit Hour	Maximum Weightage of Marks
Paper-I	Semester-I	Introduction to Anthropology	P	4	100
Paper-II		Application of Anthropology	P	4	100
Paper-III	Semester-II	Introduction to Socio-cultural Anthropology	P	4	100
Paper-IV		Introduction to Archaeological Anthropology	P	4	100
Paper-V	Semester-III	Introduction to Biological Anthropology	P	4	100
Paper-VI		Tribal and Indigenous Communities of India	P	4	100
Paper-VII		Indian Anthropology	P	4	100
Paper-VIII	Semester-IV	Ecological Anthropology	P	4	100
Paper-IX		Regional Prehistory	P	4	100
Paper-X		Research Methodology	P	4	100
Paper-XI	Semester-V	Demographic Anthropology	P	4	100
Paper-XII		Human growth & Development	P	4	100
Paper-XIII		Anthropological thought & theories-I	P	4	100
Paper-XIV	Semester-VI	Human Genetics	P	4	100
Paper-XV		Field work Based Dissertation	NP	4	100
Paper-XVI	Semester-VII	Anthropological Thoughts & Theories- II	P	4	100
Paper-XVII		Anthropology of Health & Well being	NP	4	100
Paper-XVIII		World prehistory	P	4	100
Paper-XIX		Anthropology of Development & Public policy	P	4	100
Paper-XX	Semester-VIII	Project work	NP	4	100
Paper-XXI		Anthropology Genetics: Genetics Research in Anthropology	P	4	100
Paper-XXII		Museum & Cultural Resource Management	P	4	100
Paper-XXIII		An Introduction to Linguistic Anthropology	P	4	100

CORE-II/CORE-III COURSE

Course Number	Semester Core-II/ Core-III	Course Title	Type of Paper P- Practical NP-Non-practical	Credit Hour	Maximum Weightage of Marks
Paper-I	Semester-I/II	Introduction to Anthropology	P	4	100
Paper-II	Semester-III/IV	Application of Anthropology	P	4	100
Paper-III	Semester-V/VI	Introduction to Biological Anthropology	P	4	100

ABILITY ENHANCEMENT COURSE (AEC) UNDER NEP-2020

Sl. No.	Semester	Course	Credit hour (CH)	Full Mark
Paper-I	I	Odia/Hindi/Sanskrit/Urdu	4	100
Paper-II	II	English	4	100

MULTIDISCIPLINARY COURSE:

NOTE: THIS IS APPLICABLE FOR STUDENT ADMISSION FOR THE 2026-27 BATCH.

1. A basket of semester wise MDC Courses (**Table-I**) have been approved by Sambalpur University, which will be applicable to all the U.G. programme in the affiliated colleges under Sambalpur University.
2. Students have to opt for one subject in each semester from the semester- wise subject list provided in the basket.
3. During the counselling, students are to be encouraged to opt for courses outside their discipline/faculty. (A Group of related subjects, i.e., Faculty: Science/Arts/Commerce).
4. The students are expected to choose MDC from the subjects other than their major subjects. For example, a Home Science student cannot be allowed to opt MDC from Home Science and have to choose from any other Department.

NOTE: The student cannot opt for a course already chosen in earlier semester. Ex: The subject chosen by a student in the 1st Semester cannot be chosen in 2nd Semester and the subject chosen in 1st & 2nd semester cannot be chosen in 3rd semester.

Table -1: List of MDC Course at UG level**SEMESTER-I**

MULTIDISCIPLINARY COURSE (MDC) UNDER NEP-2020					
Sl. No.	Department to teach	Semester Course	Type of Paper P- Practical NP-Non-practical	Credit hour (CH)	Full Mark
1.	Chemistry	Environmental Chemistry	NP	3	100
2.	Botany	Gardening and Vermicomposting	NP	3	100
3.	Economics	Economics in Everyday Life	NP	3	100
4.	History	History of Education in Modern India	NP	3	100
5.	Odia	Tulatmaka Sahitya	NP	3	100
6.	Political Science	Political Process in India	NP	3	100
7.	English	Ethical Literature	NP	3	100
8.	Commerce	Financial literacy	NP	3	100
9.	Education	Educational Psychology	NP	3	100
10.	Mathematics	Discrete Mathematics	NP	3	100
11.	Sociology	Sociology for Social Workers	NP	3	100
12.	Physics	Biophysics	NP	3	100

SEMESTER-II

MULTIDISCIPLINARY COURSE (MDC) UNDER NEP-2020

Sl. No.	Department to teach	Semester Course	Type of Paper P- Practical NP-Non-practical	Credit hour (CH)	Full Mark
1.	Statistics	Survival Analysis and Biostatistics	NP	3	100
2.	Zoology	Apiculture	NP	3	100
3.	Education	Gender and Education	NP	3	100
4.	Geography/Geology	Climatology	NP	3	100
5.	Philosophy	Vedic Culture	NP	3	100
6.	Hindi	विज्ञापन अवधारणा और प्रयोजनमूलक अय्यन	NP	3	100
7.	Home Science	Food Science and Nutrition	NP	3	100
8.	Commerce	Fundamentals of Entrepreneurship and E-Commerce	NP	3	100
9.	Economics	Demography	NP	3	100
10.	Mathematics	Introduction to Programming with MATLAB	NP	3	100
11.	Political Science	Indian Administration	NP	3	100
12.	History/Geography	Sustainable Tourism	NP	3	100

SEMESTER-III

MULTIDISCIPLINARY COURSE (MDC) UNDER NEP-2020

Sl. No.	Department to teach	Semester Course	Type of Paper P- Practical NP-Non-practical	Credit hour (CH)	Full Mark
1.	Mathematics/Computer Science	Programming C++	NP	3	100
2.	Physics	Introduction to Spectroscopy	NP	3	100
3.	History/ Sanskrit	Indian Knowledge System	NP	3	100
4.	Political Science	Human Rights	NP	3	100
5.	Botany/Zoology	Environmental issues and Challenges	NP	3	100
6.	Commerce	Entrepreneurship Development and start up	NP	3	100
7.	Psychology	Health Psychology	NP	3	100
8.	Philosophy	Philosophy of Bhagavad Gita	NP	3	100
9.	Botany	Herbarium Preparations	NP	3	100
10.	Education	Educations Thinkers of Modern India	NP	3	100
11.	Sociology	Public Policy	NP	3	100
12.	Library & Information Science	Management of Libraries	NP	3	100

SKILL ENHANCEDMENT COURSE:

NOTE: THIS IS APPLICABLE FOR STUDENT ADMISSION FOR THE 2026-27 BATCH.

1. *A basket of Skill Enhanced Course for various disciplines has been approved by the Sambalpur University and will be applicable to all undergraduate programme in the affiliated colleges under Sambalpur University.*
2. *A student may opt one SEC course form the basket during a particular semester, ensuring no repetition. Details of the SEC courses for each semester are provided in table-2.*
3. *Artificial Intelligence has been offered as a compulsory course at 2nd semester Skill Enhancement Course.*

TABLE-2: LIST OF THE SEC COURSE AT UG LEVEL

SKILL ENHANCEDMENT COURSE (SEC) UNDER NEP-2020			
	SEMESTER-II	Credit hour (CH)	Full Mark
Paper- I	PERSONALITY DEVELOPMENT OR ELECTION STUDIES AND PUBLIC OPINION OR QUANTITATIVE AND LOGIAL THINKING OR ANALYTICAL THINKING AND LOGICAL RESONING OR RENEWABLE ENERGY AND ENERGY HARVESTING OR VERMICOMPOSTING OR PROJECT MANAGEMENT	3	100

SKILL ENHANCEDMENT COURSE (SEC)
UNDER NEP-2020

SEMESTER-V

Paper-II	ARTIFICIAL INTELLIGENCE Compulsory for all (Arts, Science & Commerce)	Credit hour (CH)	Full Mark
		3	100

SKILL ENHANCEDMENT COURSE (SEC)
UNDER NEP-2020

	SEMESTER-VI	Credit hour (CH)	Full Mark
Paper- III	LIFE SKILL EDUCATION OR QUANTITATIVE AND LOGICAL THINKING OR INCOME TAX E-RETURN FILING OR ORGANIC FARMING OR BIOFERTILIZERS OR TYPE SETTING IN LATEX OR FOOD FERMENTATION TECHNIQUES	3	100

**VALUE ADDED COURSES (VAC)
UNDER NEP – 2020**

1. *The student will have to study one VAC course in each semester (I, III, V, VI) irrespective of their disciplines are reflected in Table-3.*

TABLE-3: LIST OF THE VAC COURSE AT UG LEVEL

VALUE ADDED COURSES (VAC) UNDER NEP – 2020				
Paper	Semester	Course title	Credit	Marks
PAPER I	Semester-I	Environmental Studies and Disaster Management	3	100
PAPER II	Semester-III	Ethics & Values	3	100
PAPER III	Semester-V	Understanding Odisha	3	100
PAPER IV	Semester-VI	Creative Writing	3	100

Syllabus for UG Anthropology (Major) under NEP-2020

CORE COURSE-I

Paper-I

Semester-I

Introduction to Anthropology

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course aims to impart basics of anthropological knowledge and its major sub Branches such as socio-cultural, biological/physical, prehistoric archaeology, and linguistic anthropology.

Learning Outcomes:

1. The students will learn about how anthropology as a discipline originated and evolved.
2. They will understand various subdivisions of Anthropology. and
3. They will also demonstrate critical understanding of different anthropological perspectives and emerging trends of anthropology.
4. From the practical component they will learn about ethnographic reading and writings and preparation of household census schedule.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Meaning, definition and scope of Anthropology. Historical development of Anthropology; Relationship of Anthropology with other disciplines (social sciences, humanities and biological sciences); Ethnology and ethnography; Origin, history and development of Anthropology in India.

Unit II:

Meaning, scope and branches of Cultural Anthropology / Social anthropology; Physical anthropology and New physical anthropology, Biological anthropology: meaning, scope and branches; Prehistory/Archaeological anthropology: meaning, scope and branches; Linguistic anthropology: meaning and scope.

Unit III:

Anthropological Perspectives: Synchronic, Diachronic, Interactive; Emic and Etic; Fieldwork Traditions in Anthropology (British, American and Indian). Emerging trends in Anthropology: Global and National Context (Climate Change and Disaster management, Artificial Intelligence and digital technology, medico legal settings, Public policy and governance, public health and nutrition, education, and sustainable development goals).

Unit IV: Practical

1. Ethnographic reading and preparation of a report based on any one monograph.
2. Preparation of a practical record on methods and techniques of prehistoric tool making.
3. Prepare a household census schedule/questionnaires (students are required to follow Census schedule, NHHS schedule, etc)
4. **Text Book Recommended:**
 - ✓ *Peter N. Peregrine Carol R. Ember, Melvin R. Ember (2020). Anthropology, 15th Edition, Pearson education, New Delhi*
 - ✓ *Haviland W.A., Prins, H. E. L, Walrath D., McBride B (2009) Introduction to Anthropology. Cengage Learning India Private Limited, New Delhi.*
 - ✓ *Scupin R., De Corse C. R. (2004) Anthropology – A Global Perspectives, PrenticeHall of India , Private Limited, New Delhi.*
 - ✓ *Eriksen T. H. and Nielsen F. S. (2008). A History of Anthropology. Rawat Publications, Jaipur, India.*
 - ✓ *Dube SC. (1992). Indian Society. National Book Trust, India : New Delhi.*
 - ✓ *Dube, S. C. (1990). Indian Village; Cornell University Press, Ithaca, New York.*
 - ✓ *Roy I. B. (2013). Anthropology: The Study of Man, S Chand and Company Limited, New Delhi.*
 - ✓ *Banerjee, H. N. (1994). Introducing Social and Cultural Anthropology, K. K. Publication, Calcutta.*
 - ✓ *Basu, M. N. (1961). Field Methods in Anthropology and other Social Sciences, Calcutta.*
 - ✓ *Hasnain, N (2022). Indian Anthropology, 8th edition, Palaka Prakashan, New Delhi.*

Applications of Anthropology

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course aims to impart knowledge on application of anthropology in addressing different issues associated human problems. The course also focuses on application of socio-cultural anthropology, archaeological anthropology and biological anthropology.

Learning Outcomes:

1. The students will learn about various applications of anthropological knowledge and techniques.
2. They will demonstrate the skill of application of socio-cultural anthropology, archaeological anthropology.
3. They will be able apply the knowledge of biological anthropology in bio-medical and legal aspects of human.
4. From the practical component they will learn about how to prepare report on an NGO or a project on tourism.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Applied Anthropology: meaning and scope, Action Anthropology and Development Anthropology; Engaged Anthropology, Experimental Anthropology; Trends in Anthropology: Anthropology of Tourism, Anthropology of Design and Fashion, Public Anthropology, Urban anthropology, Legal Anthropology and Customary law.

Unit II:

Applications of Social/Cultural Anthropology: Role of Anthropology in Development: Sustainable development, Anthropology and Community Development, Anthropology of NGOs, Management Anthropology, Business and Corporate Anthropology. Human Rights including the rights of special category and marginal groups, protection and enforcement of human rights; Human Development Index

Archaeology as Applied Anthropology, Bio-archaeology, Public archaeology, Recent Applications and Challenges: Conflict Resolution, Conservation, Cultural Identity and Representation, Cultural Tourism, Public Education, Resource Claims, Salvage Archaeology, Culture Recourse Management; Computational archaeology.

Unit III:

Applications of Physical Anthropology in legal settings: Forensic anthropology and Criminology; Conservation of non-human primate, Public health and Nutritional Anthropology, Application of Physical Anthropology in Sports: Ki anthropometry, Industry and Ergonomics, Application of Physical Anthropology in Medicine and Genetics: Genetic Counseling, Genetic screening; Genomic studies: Pharmacogenomics and personalized medicine, Privacy and Ethics of doing research on human subjects.

Unit IV: Practical

1. Prepare a report based on a visit to a Government or Non-Government organization working on tribal and rural development (example: NGO, TRI, Micro-Projects, ITDA etc).
2. Preparation of a report of based on the visit to an archaeological site or archaeological museum.
3. Online searching of articles and books on human rights violation by state and nonstate actors.

Text book recommended:

- ✓ Vidyarthi, L.P. and B.N. Sahay. 2001. *Applied Anthropology and Development in India*. New Delhi: National Publishing House.
- ✓ Vidyarthi, L.P. 1990. *Applied Anthropology in India – Principles, Problems and Case Studies*. KitabMahal.
- ✓ Gisli, P. 2007. *Anthropology and the New Genetics*. Cambridge: Cambridge University Press.
- ✓ Mathur, H.M. 1978. *Anthropology in the Development Process*. New Delhi: Vikas Publishing House Pvt. Ltd.
- ✓ Mair, L. 1961. *Studies in Applied Anthropology*. London: University of London.

Paper III**Semester-II****Introduction to Socio-Cultural Anthropology****(4 credit, Theory-45 hrs., Practical-30hrs)****Course Outcomes:**

This course aims to impart basic socio-cultural anthropological knowledge and its subject matter which includes meaning and scope of socio-cultural anthropology and culture and social institutions.

Learning Outcomes:

Unit-I: Student will learn about meaning, scope and different branches of sociocultural anthropology and basics of culture.

Unit-II: They will be acquainted with different concepts related to marriage, family and kinship.

Unit-III: They will also learn about primitive religion, political organization and economic organization in simple societies.

Unit-IV: From the practical component they will learn about different qualitative methods and techniques of socio-cultural anthropology.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit-I:

Meaning, Definition and Scope of Socio-Cultural Anthropology. Sub-Branches of Socio-Cultural Anthropology; Relationship with other disciplines; Distinction and similarities of Social/Cultural Anthropology from Sociology. Relevance of SocioCultural Anthropology today.

Culture: Meaning, Definition and characteristics; material and non-material culture; culture trait and complexes; Enculturation and Socialization. Society and Culture:

Comparison.

Unit-II:

Marriage: Concept, Meaning, definition and Function of marriage; Types of marriage: Monogamy, Polygamy (Polygyny and Polyandry), Levirate, Sororate, Cross-cousin and parallel cousin marriage; Ways of acquiring mates; Rules of marriage: Endogamy and Exogamy; Bride wealth/price, dowry and divorce.

Family: Meaning, Definition and Functions. Types of family: Joint family, Nuclear family/elementary/simple family, Extended family.

Kinship: Consanguineal and Affinal; Kin Term: Classificatory and Descriptive; Descent: Unilineal, Bilateral, Double Descent; Kinship Usages/Behaviour: Avoidance, Joking, Teknonymy, Amitate, Avunculate, Couvade.

Unit III:

Religion: Concept, Origin, Functions; Types: Animism, Animatism, Bongaism, Fetishism, Totemism, Manaism, Magic, Witchcraft, Sorcery; Shamanism, Taboo, Sacred and Profane.

Economic Organization: Principles of production, distribution, consumption in simple and complex societies; Various forms of Exchange: Barter, Trade and Market; Reciprocities: Generalized, Balanced and Negative; Redistribution.

Political Organization: Concept of Power and Authority; Types of Authority: State and Stateless Societies (Band, Tribe and Chiefdom); Law and Justice in simple and complex society; Oath and Ordeal; Customary Law; Modern law and justice vrs Primitive Law and Justice

Unit-IV: Practical

Methods and Techniques of Social and cultural Anthropology: The practical will include preparation of a report based on application of any two methods mentioned below on any events, rituals, festivals, fairs, indigenous practices, dance, environment etc. in the locality.

1. Ethnography
2. Observation
3. Interview
4. Genealogy
5. Case Study
6. Life History

Text book recommended:

✓

Peter N. Peregrine Carol R. Ember, Melvin R. Ember (2020). Anthropology, 15th Edition, Pearson education, New Delhi

✓

Haviland W.A., Prins, H. E. L, Walrath D., McBride B (2009) Introduction to Anthropology. Cengage Learning India Private Limited, New Delhi.

✓

Scupin R., De Corse C. R. (2004) Anthropology – A Global Perspectives, PrenticeHall of India Private Limited, New Delhi.

✓

Roy I. B. (2013). Anthropology: The Study of Man, S Chand and Company Limited, New Delhi.

- ✓ *Banerjee, H. N. (1994). Introducing Social and Cultural Anthropology, K. K. Publication, Calcutta.*
- ✓ *Kottak, C. P. (2014) Cultural Anthropology: appreciating cultural diversity, McGraw-Hill.*
- ✓ *Beals, R.L and H. Hoijer. 1971. An Introduction to Anthropology. 4th Ed. New York: Macmillan*

Paper IV

Semester-II

Introduction to Archaeological Anthropology

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcome:

This course gives the knowledge on the history and development of the Archaeological Anthropology and its relationship with other disciplines. The course also gives the knowledge of geological time scale and past cultures.

Learning Outcome

The learning outcomes of this paper are:

Unit I: Understand the basic concept of Archaeology

Unit II: The students will learn about the geological stages occurred in the past and also the dating methods which are very relevant in the study of prehistory.

Unit-III: The students will come to learn about the different Stone Age cultures and stone tool typology and technology.

Unit-IV: The students will learn the practical knowledge of the lithic tools of different Stone Age cultures

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I: Introduction

Definition, Nomenclature and Scope of archaeological anthropology; Historical development of archaeological anthropology; Relationship with other disciplines; New branches of archaeology: Concept of Three Age System (Stone, Copper/Bronze and Iron Ages), Ethnoarchaeology, Environmental Archaeology, Processual Archaeology; Marine Archaeology,

Unit II: Paleoenvironment and Measuring the time:

Geological stages (Tertiary, Quaternary, Pleistocene, Holocene). Major climatic changes during Pleistocene and post Pleistocene periods, glacial and interglacial periods, ice age, pluvial and inter-pluvial climatic phases.

Dating Techniques: Relevance, Relative Dating and Absolute dating (stratigraphy, river terraces, dendrochronology, thermoluminescence dating, pollen dating, glacial varve analysis, potassium-argon method, fluorine dating, C-14 dating).

Unit III: Understanding Past Cultures and Its Tool Typology and Technology:

Palaeolithic Cultures, Mesolithic Cultures, Neolithic and its revolution and Chalcolithic Cultures, Megalithic Cultures.

Stone Tool Typology: Lower Palaeolithic (pebble tools, chopper and chopping tools, bifaces, handaxes and cleavers); Middle Palaeolithic (Clactonian, Levalloisian and Mousterian flakes, discoid cores, tortoise core, fluted core, scrapers, point); Upper

Palaeolithic (blade, knife, blunted back, borer, burin, points); Mesolithic (microliths); Neolithic (ring stone, grind stone, celt, adze). Bone tool

Unit IV:

Practical: Tool Identification and Drawing

1. Identify the typology, raw-materials and methods of manufacturing of five stone tools of Palaeolithic, Mesolithic and Neolithic cultural periods
2. Drawing of 10 stone tools of Palaeolithic, Mesolithic and Neolithic cultural periods showing their obverse, reverse, profile, cross-sections with analysis

Suggested Readings

- ✓ Agrawal, D. P. *The Archaeology of India*, Curzon Press.
- ✓ Allchin, B. and Allchin, F. R. *The Rise of Civilization of India and Pakistan*. Cambridge University Press. .
- ✓ Budtzer, K. W. *Environment and Archaeology*.
- ✓ Burkitt, M. 1963. *The Old Stone Age: A Study of Palaeolithic Times*. London: Bowes and Bowes.
- ✓ D. K. Bhattacharya. 2006. *An Outline of Indian Prehistory*. Delhi: PalakaPrakashan.

Recommended reading

- ✓ D. K. Bhattacharya. 1977. *Palaeolithic Europe*. Netherland: Humanities press.
- ✓ Das, B. M., *Outlines of Physical Anthropology*. KitabMahal.
- ✓ Fagan B. M. 2004. *People of the Earth: An Introduction to World Prehistory*. New Jersey: Pearson Education.
- ✓ Hole, H. and R. F. Heizer. 1969. *An Introduction to Prehistoric Archaeology*. New York: Hold, Rinehart and Winston, INC.
- ✓ J. M. and E. S. Higgs. 1969. *The Archaeology of Early Man*. London: Faber and Faber. Coles,
- ✓ Michel, J. W. 1973. *Dating Methods in Archaeology*, Seminar Press.
- ✓ Renfrew, C. and P. Bahn. 2001. *Archaeology: Theories Methods and Practices*,
- ✓ Sakalia, H. D., *New Archaeology – Its Scope and Application to India*, Ethnographic and Folk Culture Society.
- ✓ Sankalia, H. D. 1977. *Prehistory of India*. Delhi: MunshiramManoharlal Publishers.

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Semester-III
Introduction to Biological Anthropology
(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course seeks to impart basic biological anthropological knowledge on its development as a discipline and its subject matter which includes evolution, primatology, paleoanthropology and human population diversity.

Learning Outcomes:

Unit -I. Student will understand modern and traditional Biological Anthropology, principles of evolution, and theories of human origin.

Unit-II. They will also learn about primatology and hominization process and Primate Evolution

Unit-III They will also learn about stages of human evolution and Human diversity.

Unit-IV. From the practical component they will learn about how to measure and study various parts of the human body.

Teaching Learning Process:

Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods:

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Difference in the approaches of modern and traditional Biological Anthropology. Emerging trends in Biological Anthropology. Principles of Evolution: Convergence, Divergence, parallelism, adaptive radiation, speciation, cladogenesis and Anagenesis, Theories of evolution: Lamarckism, Darwinism, Synthetic theory, and Mutation theory.

Unit II:

Man's place in Animal Kingdom. Primatology: Living Primates: Characteristics, Distribution and Classification of order primates. Primate Behaviour: Social and

Reproductive behaviour Primate Evolution: Primate Evolution with special reference

to skull, jaw, limbs, dentition and brain; Erect posture and Bi-pedalism. (Comparative anatomy and behaviour of human and non-human primates),

Unit III:

Earliest primates of Oligocene, Miocene and Pliocene: Aegyptopithecus, Propliopithecus, Dryopithecus Ramapithecus, Sivapithecus, Sahelanthropus, Ardipithecus and Proconsul.

Anatomical characteristics, distribution, phylogeny and culture of: Australopithecines (grasile & robust), Homo habilis, Homo erectus, Homo sapiens, Archaic Homo: Denisovians and Neanderthal, Modern man: Cro-Magnon, Grimaldi & Offnet, Hominization processes.

Unit IV:

Human Diversity: History and development of understanding human variation and evolutionary thought (pre-19th and post-19th Century); Concept of Race, Racial criteria (metric and non-metric), characteristic of major races of the world and race formation. Classification of the Indian population (Risely, Sarkar & Guha). Race and Racism, UNESCO statement on Race

Practical:

Introduction to Anthropology Laboratory: Dry Lab and Wet Lab, Calibration and Standardization of Instruments, Demonstration of Instruments: Anthropometry, Spreading Calliper, Sliding Calliper, Weighing Machine and Steel tape.

(A) Osteology: identify and draw with labelling different parts of the following human bones: a) Skull, b) Mandible, c) Clavicle, d) Scapula, e) Humerus, f) Radius & Ulna g) Femur, h) Tibia-fibula, i) a Vertebra.

(B) Craniometry: study two human crania / mandible and record the following measurement. The students are to be familiar with different landmarks of the skull and mandible, instruments and methods of taking measurement. 1) Maximum Cranial Length; 2) Nasion -inion Length; 3) Cranial Height; 4) Max Cranial breadth; 5) Bizygomatic breadth; 6) Nasal Length 7) Nasal Breadth 8) Glabella inion Length 9) Palatal Breadth 10) Palatal Length 11) Breadth of Ramus 12) Length of Ramus 13) Angle of Mandible 14) Facial Angle. Indices (i) Cranial Index; (ii) Nasal Index; (iii) Upper Facial Index; (iv) Transverse

Fronto-Parietal Index; (v) Transverse Cranio-Facial Index

Craniograms Measurements: (1) Maximum Cranial Length; 2. Frontal Chord; (3) Parietal Chord; (5) Occipital Chord (6) Frontal Perpendicular Angle; (7) Parietal Perpendicular Angle; (8) Occipital Perpendicular Angle; (9) Facial Profile Angle; (10) Profile Angle of Nasal Root; (11) Frontal Curvature Angle; (12) Parietal Curvature Angle; (13) Occipital Curvature Angle; (14) Inclination Angle of Foramen; (15) Calvarial Base Angle (16) quadrilateral angle .

Somatometry (Based on Current Techniques) Measurement on Head: (1) Maximum Head Length; (2) Maximum Head Breadth; (3) Bizygomatic Breadth; (4) Bigonial Breadth; (5) Nasal Height; (6) Nasal Breadth; (7) Nasal Depth; (8) Auricular Height; (9) Physiognomic Facial Length; (10) Morphological Facial Length; (11) Horizontal Circumference of the Head; (12) Transverse Arch of the Head;

Profile Angle and indices (i) Cephalic Index; (ii) Nasal Index; (iii) Ear Index; (iv) Physiognomic Facial Index; (v) Morphological Facial Index

Measurement on Trunk and Limbs : (1) Height Vertex; (2) Height Tragus; (3) Height Sternale; (4) Height Illiospinale; (5) Height Tibiale; (6) Height Spherion; (7) Height

Acromian; (8) Height Radiale; (9) Height Stylium; (10) Height Dactylium; (11) Sitting Height Vertex; (12) Span (Arm Stretch); (13) Bi-acromial Diameter; (14) Bicristal Breadth; (15) Weight of Body. indices (i) Length Breadth Index of Hand; (ii) Length Breadth Index of Foot; (iii) Relative Sitting Height Index

Somatoscopy:

i) Skin Colour; (ii) Hair Colour; (iii) Hair Form; (iv) Hair Texture; (v) Hair Whorls; (vi) Colour of Iris; (vii) Colour of Sclera; (viii) Eye Lids; (ix) Eye Brow (Shape and

Quantity); (x) Eye Opening; (xi) Eye Folds; (xii) Supra Orbital Ridges; (xiii) Nasal

Root; (xiv) Profile of Nasal Bridge; (xv) Nasal Septum; (xvi) Tip of Nose; (xvii) Fore-head; (xviii) Chin; (xix) Prognathism; (xx) External Ear : Ear Shapes, Ear Lobe attachment, Ear lobe shape size Darwins tubercle; (xxi) Lips; (xxii) Frontal Outline of the Face; (xxiii) Tongue Rolling; (xiv) Tongue Folding; (xv) Hand Clasping; (xvi) Arm Folding

Text book recommended:

- ✓ *Jurmain R., Kilgore L., Trevathan W., Ciochon R.L. (2012). Introduction to Physical ✓ Anthropology Wadsworth Publ., USA.*
- ✓ *Das B.M. 2008. Outlines of Physical Anthropology. Kitab Mahal, New Delhi.*
- ✓ *Singh, I. P. and Bhasin, M.K. 1989. Anthropometry: A Laboratory Manual on Biological*
- ✓ *Anthropology. Delhi: Kamla-Raj Enterprises.*

Suggested Reading

- ✓ *Shukla B.R.K. & Rastogi, S. 1990. Physical Anthropology & Human Genetics: An ✓ Introduction. PlakaPrakashan. Delhi.*
- ✓ *Stanford C., Allen J.S. and Anton S.C. (2010). Exploring Biological Anthropology. The*
- ✓ *Essentials. Prentice Hall Publ, USA.*
- ✓ *Mukherji, D., D. Mukherjee and P. Bharti and A .Mukhopadhyaya. 2018. Laboratory ✓ Manual for Biological Anthropology: Revised and Enlarged 2nd Edition. SCHOLAR ✓ Booksellers & Publishers, Kolkata.*
- ✓ *Sarkar, R. M. 2004. Fundamentals of Physical Anthropology (New Edition).Book World. Kolkata.*
- ✓ *Reddy V.Rami, 2011. Fundamentals of Physical Anthropology,*
- ✓ *Molnar, Stephen. 1975. Human Variations: Race Types and Ethnic Groups. London: Routledge.*

Paper VI

Semester-III

Tribal and Indigenous Communities of India

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course aims to impart meaning, definition, features of tribal and indigenous communities in India. It also highlights the different plans and policies for tribal development.

Learning Outcomes:

1. The students will learn about the concepts of tribes, characteristics, classification and the importance of studying them.
2. They will be acquainted with the tribes and tribal culture, language and literature and oral traditions of different tribes of Odisha.

3. They will also learn about different programmes and policies of tribal development and also different commissions for ST appointed by government of India.
4. From the practical component they will learn about ethnographic readings, writing annotated bibliography and structure and functions of different national institutes for research and planning for tribal development.

Teaching Learning Process:

Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods:

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Concept of tribe; General and specific characteristics of Tribes; Classification of tribes (Geographical, Economic, Linguistic and Racial); Scheduled and nonscheduled categories of tribes, Particularly Vulnerable Tribal Groups (PVTGs); Denotified tribes; Anthropology as a field in understanding tribal society; Indigenous Communities: Concept, meaning and characteristics.

Unit II:

Tribes of Odisha: distribution and classification; Origin and development of Tribal scripts in Odisha (Ol Chiki, Sorang Sompeng, Warangchiti); Tribal Literature: myths, legends, riddles and oral epics. Tribal dances: types, styles, pattern and nature. Tribal arts and aesthetics; Youth Dormitory; Tribe-caste continuum. Common Property Recourses (CPRs); customary laws; Indigenous knowledge System.

Unit III:

Tribal administrations: Tribal Sub-Plan, 5th and 6th schedules, ITDA, Micro-Projects, MADA, Cluster Approach, Constitutional Provisions and Safeguards for Scheduled Tribes; Tribal Problems in India and their remedial measures; Commissions on tribal affairs: Mandal Commission, Dhebar Commission, Renke Commission, Idate Commission, Lokur Commission, Bhuria Commission, Xaxa Commission; National Commission for Scheduled Tribes, International Conventions and Covenant.

Tribal movements and their role in the freedom struggle, Forest policies and tribes;

FRA; Forest Right Act and PESA Act, Issues of Displacement, Resettlement and rehabilitation; Role of Anthropologists in Tribal Development; Role of NGOs in tribal Development

Unit IV: Practical

1. Preparation of report on tribal myths, legends, riddles and oral epic either from primary or secondary sources.
2. Students are required to submit a report on institutes of National repute (AnSI, SCSTRTI, &TRIs) and/ or National Commission for Schedule Tribes (Structure, objectives and activities)
3. Write an annotated bibliography on any one tribe.

Text book recommended:

- ✓ Behura N. K. and Mohanti K. K. (2006) *Tribal Odisha: Readings in Social Anthropology*. Dominant Publishers and Distributors, New Delhi.
- ✓ Chaudhary, B. (1982) *Tribal Development in India; Problem & Prospects*; InterIndia Publications, Delhi.
- ✓ Ota, A. B. & Mohanty, S. C. (2015) *Demographic Profile of Scheduled Tribes of Odisha*, SCSTRTI, Bhubaneswar.
- ✓ SCSTRTI (2004): *Tribes of Odisha, Revised Edition*, SCSTRTI, Govt. of Odisha, Bhubaneswar

- ✓ SCSTRTI: (2008) *Tribal Traditions and Customs*, Vol.I Odisha Govt. Press, Cuttack
- ✓ SCSTRTI (2015): *PVTGs of Odisha*, Vol.I, *Ethnography*, Director, SCSTRTI, Bhubaneswar.
- ✓ SCSTRTI (2015): *PVTGs of Odisha*, Vol.II, *Change and Development*, Director, SCSTRTI, Bhubaneswar.
- ✓ SCSTRTI (2015): *PVTGs of Odisha*, Vol. III, *anthropology of Health & Medicine*, Director, SCSTRTI, Bhubaneswar.
- ✓ Vidyarthi L.P and Rai B.K.. (1976). *The tribal culture of India*. Concept Publishing Co, Delhi.
- ✓ Vidyarthi, L.P. 1990. *Applied Anthropology in India – Principles, Problems and Case Studies*. Kitab Mahal.

Paper VIII

Semester-IV

Ecological Anthropology

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

To introduce students to the foundational principles and historical development of Ecological Anthropology, providing a comprehensive understanding of ecological perspectives and their relevance to human societies.

Learning Outcomes:

Unit I: Students will understand the foundational concepts and historical evolution of Ecological Anthropology and Understand Ecologically Sustainable Development, Environmentalism, and Conservation Strategies like JFM and MFP, recognizing the importance of indigenous knowledge for environmental conservation

Unit II: Learners will grasp the fundamentals of Ecology and Ecosystem.

Unit III: Students will explore the intersection of culture and environment through Ecological Ethnography, examining the cultural components of various societies and their relationship with ecological transitions and state formations.

Unit IV: Engage in hands-on research or project work to investigate on community based contemporary environmental issues, fostering critical thinking and practical application of ecological concepts.

UNIT-I:

Ecological Anthropology: Definition and Scope; History and Development of Ecological Anthropology; Concepts and Perspectives of Ecology: Cultural Ecology, Population Ecology, Systems Ecology, Ethno Ecology, Palaeo Ecology and Social Ecology; Evolutionary ecology and Deep ecology

UNIT: II:

Ecology and Ecosystem: Definition of Ecology; Ecosystem: Concept, meaning, types and components; Ecological Rules: Allens and Bregmans, Human Adaptability Programme; Adaptation and Evolution: Bio-Cultural Adaptation of Man to Heat, Cold and High Altitude; Eco-niche; Energetic and Human Society: Sources of Energy, Food Chain and Web, Flow of Energy, Ecological Equilibrium and Concept of

Carrying Capacity

UNIT-III:

Ecological Transition, Concept of Culture Core and its relation with Environment and

Other aspects of Culture; Ecological Ethnography: Study of features of HunterGatherers, Nomads and Island Communities, Cultural Component of system: Culture as a Master Variable. Ecological themes of State formation: Neolithic revolution and Hydraulic civilization.

UNIT-IV:

Concept of Ecologically/Environmentally Sustainable Development; Environmentalism: Environmental Movements, Effects of Development Projects and Processes on Environment. Environmental Policy in India; Conservation Strategies:

JFM and MFP. Indigenous knowledge for environment.

Practicals:

1. Conduct a comparative study of traditional ecological knowledge systems in different communities.
2. Study sacred grooves /Nature-Man-Sprit- Complex/ Traditional knowledge system locally available
3. Conduct field trip to study local ecosystems and their human impacts to assess environmental sustainability and propose management strategies.
4. Develop a community-based project to address environmental challenges identified through ethnographic research.
5. Design and implement an educational outreach program to raise awareness about the importance of ecological conservation and indigenous knowledge
6. Conduct a research project on the socio-ecological impacts of a specific development project or policy.

Books Recommended:

- ✓ 1. O. Hardesty, D *Ecological Anthropology*
- ✓ 2. Bennet, J.W. *The Ecological Transition*
- ✓ Harris, M. 1971. *Culture, Man and Nature*, New York: Thomas Y Cormbell.
- ✓ Ramakrishnan, PS., 2001 (2015). *Ecology and Sustainable Development: Working with Knowledge systems*. New Delhi. National Book Trust, India
- ✓ 1. , Odum E.P. *Fundamentals of Ecology*
- ✓ 2. Bresser *Human Ecology*
- ✓ Eckstein, P.R. & Ehrlick, Avne, Holdren, J.P. *Human Ecology*
- ✓ Orlove, B. 1980. *Ecological Anthropology. Annual Review of Anthropology. Vol.9.pp.235-73*
- ✓ Rappaport, Roy A. 1967. *Pigs for the Ancestors: Rituals in the Ecology of a New Guinea People*. New Haven: Yale University Press
- ✓ Cohen, Yehudi A. 1968. *Man in Adaptation: The cultural Present*. Chicago: Aldine

Paper IX

Semester-IV

REGIONAL PREHISTORY

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course gives idea of the Pleistocene events and development of early humans and the knowledge of different sites of Africa, Europe and South East Asia.

Learning Outcomes:

1. To develop ideas about the different prehistoric cultures of India and Odisha.
2. To explain the cultural revolution in Odisha and its comparison to other sites of India.
3. To understand the ecological background of Odishan prehistory and rock art heritage.
4. To understand the megalithic and iron age tradition in the region

Teaching Learning Process:

Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods:

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit-I: Palaeolithic, Mesolithic and Neolithic Period in India:

Lower Palaeolithic: Pebble tool culture, Acheulian culture: Madrasian (Kortalayar Valley), Attirmpakkam, Didwana, Belan Valley, Bhimbetka, Chirki-Nevasa, Hunsgi, Krishna Valley. Importance of Hathnora, Narmada valley. **Middle Palaeolithic period in India:** Belan valley, Bhimbetka, Nevasa, Narmada valley. **Upper Palaeolithic period in India:** Renigunta, Billa Surgam, Patne, Bhimbetka, Son and Belan Valleys, **Mesolithic:** Economy and society.. Development in microlithic typology and technology, Sites include Bagor, Tilwara, Langhnaj, Adamgarh, Bagor, Chopani Mando, Bhimbetka, Sarai Nahar Rai, Birbhanpur. **Neolithic Period:** Economic and social consequences of food production. Settlements, population growth, craft specializations, class formation and political institutions. Sites like Burzahom, Gufkral, Ahar, Kayatha, Navdatoli, Eran, Nevasa, Inamgaon, Maski, Sangankallu, Tekkalkota, Piklihal, Nagarjunakonda, Daojali Hading, Sarutaru.

Prehistoric Cave art from India: Bhimbetka, Adamgarh.

Unit-II: Metal Age and Megalithic Cultures in India:

Indus Civilization: Expansion of village sites. Salient features, metal technology, art and writing. Architecture and city planning. Chronology, Stages and theories of decline. Important Sites like Amri, KotDiji, Kalibangan, Mohenjodaro, Harappa,

Lothal, Dholavira, Rakhigarhi. **Pottery and Traditions:** Ochre Coloured Pottery

(OCP), Black and Red ware, Painted Grey Ware (PGW), Northern Black Polished Ware (NBP). Distribution of the pottery types and period. **Bronze/Copper Age:** General characteristics, distribution, people. Iron Age and Urban Revolution: General characteristics, distribution, people. **Megaliths:** concept and types (menhir, dolmen, topical, cist, cairn circle, sarcophagi)

Unit-III: Prehistory and Protohistory of Odisha:

Ecological background, Palaeolithic Mesolithic, Neolithic Culture of Odisha, Metal Age Culture, Rock Art, Copper Double Axe, Living Megalithic tradition, Preindustrial Iron Smelting Tradition, Distribution of Major explored and Excavated Prehistoric and Protohistoric Sites- Kuliana, Kalabadia, Jashipur, Kuchai, Baidypur,

Sankerjang, Bangriposhi, Golabai, Gopalpur, Malikhoja, Banabasa, Pallahara, Telkoi, Dhenkanal, Bang-Harirajpur,

Unit- IV: Practical:

Students have to show the major explored and excavated pre and protohistoric sites of Odisha in Map and to mention their significance, cultural period, explored/excavated by, year of exploration/excavation, material recovered etc

Books Recommended

- ✓ Agarwal, D.P. 1984, *Archaeology of India*. New Delhi: Select Book Services Syndicate.
- ✓ Allchin, Briget and Raymond Allchin. 1982. *The Rise of Civilization in India and Pakistan*. Cambridge: Cambridge University Press.
- ✓ Chakrabarti, S. 1992. *New Perspectives on Palaeolithic Archaeology of Kuliana, Northern Orissa, Eastern India*. In **Proceedings of the XX Conference of Indian Society for Prehistoric and Quaternary Studies**. Dharwad; Karnataka University. Pp. 1-3.
- ✓ Bhattacharya, D. K. 2001. *An Outline of Indian Prehistory*. Delhi: PalakaPrakashan
- ✓ Chakrabarti D.K. 1999. *India: An Archaeological History: Palaeolithic Beginnings to Early Historic Foundations*. Delhi: Oxford University Press.
- ✓ Dash, R.N. 2000. *The Neolithic Culture of Orissa: A Typo-Technological Analysis*. In Basa, K.K. and P. Mohanty edited **Archaeology of Orissa**. Delhi; Pratibha Prakashan. Pp.222-263.
- ✓ Nanda, S.C. 2000 *The Upper Palaeolithic and Mesolithic Cultures of the Indravati Valley, South Orissa: An Ethnoarchaeological Study*. In Basa K.K. and P. Mohanty edited **Archaeology of Orissa**, Vol.-I. Delhi; Pratibha Prakashan. pp. 153-172.
- ✓ Mohapatra, G.C. 1962. *Stone Age Culture of Orissa*. Poona.
- ✓ Ray, Ranjana 1993 *Discovery of a Chalcolithic site near the source of River Baitarani, Orissa* **Journal of the Indian Anthropological Society** 28:97-101.

Suggested Readings

- ✓ Agrawal, D.P. 1971. *The Copper-Bronze in India*. New Delhi.
- ✓ Ball, V. 1876. *On Stone Implements found in the Tributary States of Orissa*. **Proceedings of the Asiatic Society of Bengal**. Pp.120-121.
- ✓ Banerjee, R.D. 1930. **History of Orissa**, Vol.-1. Calcutta; ProbasiPpress.
- ✓ Basa, K.K. & P. Mohanty (Eds) 2000. *Archaeology of Orissa*. New Delhi: Pratibha Prakashan.
- ✓ Basa, Kishor K. 1994. **Problems and Perspectives in Archaeology of Orissa, India**. Occasional Paper in Anthropology. Utkal University, Bhubaneswar.
- ✓ Basa, Kishor K. 1999. *Neolithic and Post-Neolithic Cultures of Orissa: An Overview*. In Pradhan, S. edited **Orissan History, Culture and Archaeology**. New Delhi, p.31.
- ✓ Chakrabarti, S. 1993. **Exploration at Kuliana and its Neighbourhood, Mayurbhanj District, Orissa 1992-93**. A Report Submitted to the Archaeological Survey of India. New Delhi, pp.1-13.
- ✓ Chakraborti, Subrata 2000 *Recent Advances in Prehistory of Mayurbhanj*. In Basa, K.K. and P. Mohanty edited **Archaeology of Orissa**, Vol.I. Delhi; PratibhaPrakashan. pp.77-101.
- ✓ Senapati, N. and N.K. Sahu. 1967. **Orissa District Gazetteers, Mayurbhanj**. Cuttack; Orissa Govt. Press.
- ✓ Thaper, B.K. 1961-62. *Excavation at Kuchai, District Mayurbhanj*. **IAR** 1961-62, pp. 35-363.

Research Methodology

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course aims to impart the knowledge of research methodology in Anthropology. It also focuses on types of research, methods of data collection, data analysis and research ethics.

Learning Outcomes:

1. Student will learn about the types of research in Anthropology and different research design.
 2. They will be able to understand the significance of hypothesis and Sampling procedures
 3. They will develop proper understanding of different types of tools and techniques of data collection.
 4. They will also learn about research ethics and able to develop the skill of report writing.
- From the practical component they will apply the concepts and methods learnt in above unit in real time situations. .

Teaching Learning Process:

Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods:

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit-I:

Types of research: based on data (Quantitative and qualitative), tools (survey questionire and interview), techniques (content and statistical), method (Experimental and non-experimental) and methodology (field work, case studies, trials), applications and utility of anthropological research; Formulation and selection of a research problem; objectivity of research; Conceptual framework, Review of literature; Field work, Techniques of rapport establishment. Methods of comparison; Restudy in Anthropology.

Unit II:

Research design: Meaning, Definition, Features of research design; Types of research design - exploratory, descriptive diagnostic and experimental research. Hypothesis: Meaning, Definition and characteristics of good hypotheses; Types of Hypotheses; Testing of hypothesis, Sampling: Meaning, Importance of sampling, Types of sampling; probability and nonprobability sampling.

Unit III:

Methods of data collection: Observation, Interview, key informant interview, Focus group discussion, Free listing, pile sorting, Case study and Life history, Genealogical method; pedigree analysis; PRA and RRA;

Qualitative data analysis : content analysis ; Scaling (comparative and noncompetitive)

Unit IV:

Ethics in research: Ethical issues and principles in the context of human research, bioethics, informed consent; Plagiarism – issues, types.

Report writing – Structure and technique, concepts of preface, notes (end and footnotes), bibliography (annotated) and Types of references, Authorship and publication; Research data bases.

Practical:

Write the review of literature on a topic.

Visit a public place (e.g., a park, cafe, library) use observation methods on the interactions and behaviors of people and write a report

1. Prepare an interview schedule/questionnaire

1. Form small groups and conduct a focus group discussion on a topic of interest (e.g., university facilities).
2. Select an individual and create a detailed case study or life history, focusing on significant life events and experiences and write a report
3. Create a genealogical chart for their own family noting relationships and significant traits.
4. Visit a nearby community and engage with residents to gather information using PRA and RRA techniques (e.g., mapping, seasonal calendars).
5. Design a survey with comparative (e.g., Likert scale) and non-comparative (e.g., rating scales) questions on a topic of interest (e.g., student satisfaction with campus services).
6. Students ask their peers / community members to list items related to a specific category for free listing and ask them to sort them into piles based on similarity for pile sorting.
7. Undertake a study on any topic of choice and present the findings.

Suggested Readings

- ✓ *Barnard, H. R. 2006. Research Methods in Anthropology. Qualitative and Quantitative Approaches. Rowman Altamira Press.*
- ✓ *Erwin A. (2004). Applied Anthropology Tools and Practice, Allyn and Bacon.*
- ✓ *Kothari, C. R. Research Methodology, Methods and Techniques, Wiley Eastern Limited: New Delhi.*

Recommended Readings

- ✓ *Bernard, H. R. 1988. Research Methods in Cultural Anthropology, Sage Publications.*
- ✓ *Emerson R M, Fretz R I and Shaw L. 1995. Writing Ethnographic Field Notes, Chicago, Chicago University Press*
- ✓ *Madriga L. 2012. Statistics for Anthropology. Cambridge, Cambridge University Press.*
- ✓ *Wilkinson, T. S. and Bandarkar, P. L. 1984. Methodology and Techniques of Social Research, Mumbai: Himalaya Publishing House.*
- ✓ *Patton, M.Q. 2002, Qualitative Research and Evaluation Methods. London: Sage.*
- ✓ *Srivastava, V (Ed.). 2005. Methodology and Fieldwork. Oxford India Paperbacks, New Delhi*
- ✓ *Pelto, P.J. and Pelto, G.H. 1978. Anthropological Research: The Structure of Inquiry. New York. Cambridge University Press.*

Demographic Anthropology

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course aims to provide students with a comprehensive understanding of demographic anthropology, covering key theories, data analysis tools, Indian demographic trends, national policies, and practical applications through virtual visits to research centers, facilitating their ability to analyze and interpret demographic data effectively.

Learning Outcomes:

Unit I: Understand the foundational concepts of Demographic Anthropology, including key theories and their relationship to anthropology.

Unit II: Utilize tools for demographic data analysis, including measures of population composition, fertility, mortality, and migration.

Unit III: Analyze demographic trends in India, considering anthropological determinants and addressing issues related to refugees, populations in exile, and LGBTQ+ communities and Examine national policies related to population and health, including the National Population Policy and the Peoples of India Project.

Unit IV: Students will analyze demographic data, investigate Indian demographic trends, and explore Centers or institutes through virtual visits, enhancing their understanding of practical applications in demographic anthropology.

Teaching Learning Process:

Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods:

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Demographic Anthropology; Introduction, definition and basic concepts Relationship between demography, population studies and anthropology Population Theories: John Graunt, Thomas R. Malthus; Biological theory of population; Theory of demographic transition.

Unit II:

Tools of Demographic Data; Measures of population composition, distribution

And growth; Measures of fertility; Measures of mortality; Measures of migration. Selection Intensity and Isonomy analysis

Unit III:

Population of India: Sources of demographic data in India; Growth of Indian population; Anthropological determinants of population growth; Issues of Refugees and population in exile & LGBTQs.

Unit IV:

National policies; National Population Policy; National Health Policy; National Policy on Reproductive Health Care. Peoples of India Project (Anthropological Survey of India).

Practical :

1. NFHS, Census data analysis: Population pyramid construction, population density, dependency ratio and sex ratio estimation (ST/ SC populations of India and Odisha).
2. Calculation of CBR, TFR, ASFR, CDR, MMR, IMR, Mean Age at marriage, Net Migration, Life Expectancy (Secondary source information).
3. Demography of Indian tribal and non-tribal groups: Students are required to submit a brief report on any one group of ST/SC population of India/Odisha.(Source: <https://censusindia.gov.in/>)
4. Virtual visit of Population Research Centers/Institutes: (PRC), IIPS , UNFPS, UN etc. websites (Structure, function and current projects)

Books Recommended

- ✓ Bhende A. and Kaniikar, T. (2010) *Principles of Population Studies*. Himalaya Publishing
- ✓ Caldwell J.C. (2006). *Demographic Transition Theory*. Springer.
- ✓ Pathak KB and F. Ram (2016). *Techniques of Demographic Analysis*. Bombay : Himalaya Pub. House.
- ✓ Riley N.E. and Mc Carthy, J. (2003) *Demography in the Age of the Postmodern*. Cambridge
- ✓ Sinha VC & E Zacharia (2009). *Elements of Demography*. Allied Publishers Pvt. Ltd, Kolkata, Revised Edition.
- ✓ Srivastava O.S. (1996) *Demographic and Population Studies*. Vikas Publishing House, India
- ✓ University press. UK. Pages 1-13 and 32-98 **Suggested Readings**
- ✓ Gautam R.K., Kshatriya, G.K. and Kapoor A.K. (2010) *Population Ecology and Family Planning*. Serials publications. New Delhi.
- ✓ Misra BD (1982). *An introduction to the study of population*. South Asia publ. ltd. New Delhi.
 - National Population Policy <http://populationcommission.nic.in/npp.htm>
- ✓ Park K. (2000) *Text book of Preventive and Social Medicine*. Banarsidas Bhanot, Jabalpur.
- ✓ Patra P.K. and Kapoor, A.K. (2009) *Demography And Development Dynamics in a Primitive Tribe of Himalayas*. International Book Distributors, Dehradun
- ✓ N. (1986) *Demographic Anthropology*. Ann. Rev. Anthropol. 15: 219-246
- ✓ Sharma A.K. (1979) *Demographic transition: A Determinant of Urbanization*. Social Change
- ✓ Satapathy, K. C. (2010) *Refugees' Health*, Athena Books, Odisha.
- ✓ United Nations Reports on Populations: <https://population.un.org/wpp/>
- ✓ Zubrow E.B.W. (1976) *Demographic anthropology*. Quantitative approaches. University of New Mexico Press, Albuquerque.
- ✓ Census of India (2001,2011), SRS bulletin (2013), NFHS (2006), CRS, NSSO (Can be seen from browsing net) ○ House. Mumbai (All Units, It covers most topics)
- ✓ Howell
- ✓ NFHS I, II, III, IV & V: 1992, 1998, 2005, 2015, 2019 India : IIPS Bombay
- ✓ Ota, A. B. & Mohanty, S. C. (2015) *Demographic Profile of Scheduled Tribes of Odisha*, SCSTRTI, Bhubaneswar.

- ✓ Ota, A. B. & Mohanty, S. C. (2015) *Demographic Profile of Scheduled Castes of Odisha (1961-2011)*, SCSTRTI, Bhubaneswar.
- ✓ SCSTRTI (2004): *Tribes of Odisha, Revised Edition*, SCSTRTI, Govt. of Odisha, Bhubaneswar
- ✓ SCSTRTI (2015): *PVTGs of Odisha*, Vol. III, *anthropology of Health &Medecine*, Director, SCSTRTI, Bhubanaeswar.
- ✓ SCSTRTI (2015): *PVTGs of Odisha*, Vol.I, *Ethnography*, Director, SCSTRTI, Bhubanaeswar.
- ✓ SCSTRTI (2015): *PVTGs of Odisha*, Vol.II, *Change and Development*, Director, SCSTRTI, Bhubanaeswar.
- ✓ Singh, K. S. (1995-98), *People of India: Scheduled tribes*, ASI, Oxford University Press.

Paper-XII

Semester-V

Human Growth and Development

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course seeks to impart knowledge on human growth and development through the exploration of theoretical concepts, measurement techniques, bio-cultural influences, and practical applications, aimed at promoting holistic understanding and assessment of human health and nutrition across the lifespan.

Learning Outcomes:

The learning outcomes of this paper are:

1. The students will learn about the concepts and indicators of human growth and development.
2. They will learn about pre-natal and post-natal growth.
3. They will also learn about various bio-cultural factors that influence growth.
4. From the practical component they will learn about how to assess growth, obesity and
5. Nutritional status.

Teaching Learning Process:

Lectures and Discussions, Seminars and Presentations, Practical Classes Assessment **Methods:**

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Learning Outcomes:

Unit I:

Concept of human growth, development, differentiation and maturation; Evolutionary perspective on human growth. Human lifespan development process, significance/ applicability of growth studies. Major stages of human growth and development: Prenatal (conception till birth) and postnatal (birth till senescence) period of growth and their characteristics.

Unit II:

Measurement and assessment of human growth: changing human growth patterns, pattern of normal growth curves, variation from normal growth (canalization, catchup growth and catch-down growth), Growth references and standards; abnormal growth. Ethnic and gender differences in growth curves, secular trend.

Unit III:

Segmental growth and development; analysis of Human physique and body composition – models and techniques; Somatotyping and human physique with reference to Sheldon, Parnell, Heath and Carter methods.

Unit –IV:

Bio-cultural factors (genetic, social, and ecological factors) influencing patterns of growth and development, methods and techniques to study growth- longitudinal, Cross-sectional, mixed longitudinal.

Food and nutrients: nutritional status assessment and methods of evaluation; nutritional epidemiology- concept of balanced diet, impact of malnutrition (over and under) with special reference to obesity, Kwashiorkor and Marasmus.

Practical:

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

Text book recommended:

- ✓ Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi.
- ✓ Mukherji, D., D. Mukherjee and P. Bharti and A .Mukhopadhyaya. 2018. *Laboratory ✓ Manual for Biological Anthropology: Revised and Enlarged 2nd Edition*. SCHOLAR ✓ Booksellers & Publishers, Kolkata.
- ✓ Reddy V.Rami, 2011. *Fundamentals of Physical Anthropology*,
- ✓ Reddy V.Rami, 2011. *Current trends in Physical Anthropology and Human Genetics*.

Suggested Readings

- ✓ Bogin B. (1999) *Patterns of human growth*. Cambridge University Press.
- ✓ Frisancho R. (1993) *Human Adaptation and Accommodation*. University of Michigan ✓ Press.
- ✓ Cameron N and Bogin B. (2012) *Human Growth and Development*. Second edition, Academic press Elsevier.
- ✓ Harrison GA and Howard M. (1998). *Human Adaptation*. Oxford University Press.
- ✓ Harrison GA, Tanner JM, Pibeam DR, Baker PT. (1988). *Human Biology*. Oxford ✓ University Press.
- ✓ Kathleen K. (2008). *Encyclopedia of Obesity*. Sage.
- ✓ Malina RM, Bouchard C, Oded B. (2004) *Growth, Maturation, and Physical Activity*.
- ✓ *Human Kinetics*.
- ✓ Sinha R and Kapoor S. (2009). *Obesity: A multidimensional approach to contemporary global issue*. Dhanraj Publishers. Delhi.

Anthropological Thoughts and Theories-I

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

This course aims to impart the emergence of Anthropology as an empirical discipline and focuses on various anthropological theories.

Learning Outcomes:

1. Student will learn about the emergence of Anthropology as an empirical discipline and theoretical debates in the discipline as well as theories like evolutionism and diffusionism.
2. They will be acquainted with the theories of functionalism, structuralism and culture and personality schools of thoughts.
3. The students will learn about the importance and application of anthropological theories in understanding and solving human problems
4. From the practical component they will be oriented towards the development of different tools to conduct contemporary research.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I: Evolutionism and Diffusionism

Emergence of Anthropology as an empirical discipline; Premises of cultural evolution: Auguste Comte, Charles Darwin, Herbert Spencer

Cultural evolutionism: Classical Evolutionism: British school American school and

Germany School; Neo-evolutionism (Julian Steward, Leslie White, V. Gordon Child etc.)

Cultural Diffusionism: British School, American School and Germany School Particularism – Franz Boas.

Unit II: Functionalism, Structuralism and Culture-Personality

Functionalism – B. K. Malinowski; Structural-Functionalism – Emile Durkheim, Radcliffe-Brown, Firth, Fortes, Eggan, Parsons.

Structuralism – Levi-Strauss, Evans-Pritchard, Edmond Leach and S. F. Nadel.

Culture and Personality/Psychological Anthropology – M. Mead, R. Benedict, DuBois, Linton, Kardiner.

Unit III: Cultural Materialism

Cultural Materialism: Marvin Harris.

Symbolic Anthropology – Victor Turner, Raymond Firth, Mary Douglas.

Deep Ethnography, Interpretive Anthropology – Clifford Geertz.

Marxist Anthropology; Phenomenology; Postmodernism, Post structuralism– Michel Foucault, Jacques Derrida, Pierre Bourdieu.

Unit IV: Practical

As a part of the practical following exercises will be undertaken by the students so as to enable them to connect the theories they learn with things of everyday living.

1. To identify a topic relating to contemporary issue and formulate research questions and clearly identify the theoretical perspectives from which they are derived.
2. Identification of variables of a study.
3. Identification of universe and unit of study with justifications.
4. Choice of appropriate research technique and method in the context of theoretical framework.
5. Data collection and analysis

Essential Readings:

- ✓ Barnard, A., 2000. *History and Theory in Anthropology*. UK: Cambridge University Press.
- ✓ Geertz, Clifford, 1973. *The Interpretations of Cultures*. New York: Basic Books, Inc.
- ✓ Harris, M., 1968. *The Rise of Anthropological Theory*. New York: Harper Collins Publishers.
- ✓ Jerry D. Moore, 1997. *An Introduction to Anthropological Theories and Theorists*. New Delhi: Rawat Publications.
- ✓ Malefijt, Annemarie De Waal, 1974. *Images of Man: A History of Anthropological Thought*. London: Alfred A. Knopf.
- ✓ Upadhaya, VS and G. Pandey, 1993. *History of Anthropological Thought*. Delhi: Concept.
- ✓ Behera, N. K., 1988. *Anthropological Thought and Theories*. Calcutta: Institute of Social Research and Applied Anthropology.

Paper-XIV

Semester-VI

Human Genetics

(4 credit, Theory-45 hrs., Practical-30hrs)

Course Outcomes:

The paper aims to provide an in-depth understanding of Human Genetics starting from classical genetics, Human Cytogenetics, Molecular genetics and Population Genetics, enabling students to comprehend the genetic methods and their application in disease association studies and evolutionary research.

Learning Outcomes

1. The student will learn about the Mendel's Laws, inheritance modes, and epigenetics and basics of Human cytogenetics.
2. The student will understand DNA structure, gene function, and gene expression and methods in human genetics
3. The students will understand basics of population genetics and evolutionary process producing genetic variation. They will also learn about common genetic variation existing in human species.
4. The students will learn to utilize genetic databases and conduct practical genetic tests.

Teaching Learning Process:

Lectures and Discussions, Seminars, Assignments and Presentations, Practical Classes

Assessment Methods:

Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Human Genetics: Meaning and Scope, Mendel's Laws of inheritance, Mendelian and Non Mendelian modes of Inheritance; epigenetic inheritance, penetrance and expressivity. Human Cytogenetics: Structure and function of an animal cell, cell theory and cell division (Mitosis and Meiosis), Chromosomal structural and numerical chromosomal aberrations in man Lyon's hypothesis, Euchromatin and hetero chromatin.

Unit II:

Structure and Function of DNA, concept of gene, DNA replication. Repair

and recombination, gene expression, coding and non-coding regions. Expression of genetic information: from Transcription to Translation - the relationship between genes and protein. Human genome project.

Unit III:

Pedigree analysis, methods of assessing chromosomal abnormalities (Banding techniques; Karyotyping; FISH); Sib-pair and Twin studies Heritability estimate; Genotyping and Sequencing methods.

Unit IV:

Processes for genetic variation; Mutation: Gene mutation-Spontaneous, Induced, causes of mutations, Genetic drift, Inbreeding and Natural selection. Genetic Polymorphism: Balanced and Transient; Genetic Markers: Human blood group systems, Secretor factor, Red Cell Enzymes; G6PD, hemoglobinopathies, DNA markers. (Autosomal, mt DNA and Y chromosome)

Practical:

1. Exposure to the OMIM and NCBI database and websites Scitable
2. Analyze Genetic traits for Hardy-weinberg equilibrium
3. Color Blindness Test Using Ishihara card
4. Blood grouping-A1,A2,B,O, MN and Rh(D) blood groups
5. Preparation of Karyotyping and identification of disorders based on karyotype pictures
6. Construction of Pedigree for a genetic disease
7. Project report based on data collection related to one mendelian disorder on the basis of brief field visits, in nearby areas.

Books recommended:

- ✓ Shukla B.R.K. & Rastogi, S. 1990. *Physical Anthropology & Human Genetics: An Introduction*. Plaka Prakashan. Delhi.
- ✓ Klug WS (2012). *Concepts of Genetics*. Pearson.
- ✓ Lewis R. (2009). *Human Genetics: Concepts and Application*. The McGraw-Hill Companies, Inc.

Suggested reading:

- ✓ Vogel F. and Motulsky A.G. (1996). *Human Genetics: Problems and Approaches*.
 - Springer, 3rd revised edition.
- ✓ Brown TA. (2007). *Genomes*. Garland Science.
- ✓ Cummings MR (2011). *Human Heredity: Principles and Issues*. Brooks/Cole, Cengage Learning
- ✓ Das B.M. 2008. *Outlines of Physical Anthropology*. Kitab Mahal, New Delhi
 - Giblett, ER. (1969). *Genetic Markers in Human Blood*. Blackwell Scientific, Oxford.
- ✓ Jobling M, Hurles M and Tyler-Smith C. (2004). *Human Evolutionary Genetics: Origins, Peoples & Disease*. New York: Garland Science
- ✓ Verma, P.S. and V.K. Aggarwal (1974). *Cell Biology, Genetic, Molecular Biology, Evolution and Ecology*. S. Chand and Company Pvt. Ltd., New Delhi.

Paper-XV

Semester-VI**FIELDWORK BASED DISSERTATION**

Empirical study among the tribes, castes, marginalized, LGBTQ or minority communities of Odisha is to be conducted in rural or urban areas for a minimum period of 20 days in semester VI under the guidance of a teacher or teachers. Two copies of dissertation and field diary are to be submitted for examination after the 20 days field work and presentation of seminar. The Examination of Dissertation shall be conducted by an internal and an external examiner.

Dissertation based on 20 day's fieldwork	40 Marks
Seminar Presentation	30 Marks
Field Diary	10 Marks
Viva voce test on dissertation	20 Marks

CORE COURSE II/ III**Minor (Paper-I)****Semester I/II****Introduction to Anthropology****(4 credit, Theory: 45 hrs, Practical: 30 hrs)****Course Outcomes:**

This course aims to impart basics of anthropological knowledge and its major sub Branches such as socio-cultural, biological/physical, prehistoric archaeology, and linguistic anthropology.

Learning Outcomes:

5. The students will learn about how anthropology as a discipline originated and evolved.
6. They will understand various subdivisions of Anthropology. and

7. They will also demonstrate critical understanding of different anthropological perspectives and emerging trends of anthropology.
8. From the practical component they will learn about ethnographic reading and writings and preparation of household census schedule.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Meaning, definition and scope of Anthropology. Historical development of Anthropology; Relationship of Anthropology with other disciplines (social sciences, humanities and biological sciences); Ethnology and ethnography; Origin, history and development of Anthropology in India.

Unit II:

Meaning, scope and branches of Cultural Anthropology / Social anthropology; Physical anthropology and New physical anthropology, Biological anthropology: meaning, scope and branches; Prehistory/Archaeological anthropology: meaning, scope and branches; Linguistic anthropology: meaning and scope.

Unit III:

Anthropological Perspectives: Synchronic, Diachronic, Interactive; Emic and Etic; Fieldwork Traditions in Anthropology (British, American and Indian). Emerging trends in Anthropology: Global and National Context (Climate Change and Disaster management, Artificial Intelligence and digital technology, medico legal settings, Public policy and governance, public health and nutrition, education, and sustainable development goals).

Unit IV: Practical

4. Ethnographic reading and preparation of a report based on any one monograph.
5. Preparation of a practical record on methods and techniques of prehistoric tool making.
6. Prepare a household census schedule/questionnaires (students are required to follow Census schedule, NHHS schedule, etc)

Text Book Recommended:

- ✓ *Peter N. Peregrine Carol R. Ember, Melvin R. Ember (2020). Anthropology, 15th Edition, Pearson education, New Delhi*
- ✓ *Haviland W.A., Prins, H. E. L, Walrath D., McBride B (2009) Introduction to Anthropology. Cengage Learning India Private Limited, New Delhi.*
- ✓ *Scupin R., De Corse C. R. (2004) Anthropology – A Global Perspectives, PrenticeHall of India , Private Limited, New Delhi.*
- ✓ *Eriksen T. H. and Nielsen F. S. (2008). A History of Anthropology. Rawat Publications, Jaipur, India.*
- ✓ *Dube SC. (1992). Indian Society. National Book Trust, India : New Delhi.*
- ✓ *Dube, S. C. (1990). Indian Village; Cornell University Press, Ithaca, New York.*
- ✓ *Roy I. B. (2013). Anthropology: The Study of Man, S Chand and Company Limited, New Delhi.*
- ✓ *Banerjee, H. N. (1994). Introducing Social and Cultural Anthropology, K. K. Publication, Calcutta.*
- ✓ *Basu, M. N. (1961). Field Methods in Anthropology and other Social Sciences, Calcutta.*
- ✓ *Hasnain, N (2022). Indian Anthropology, 8th edition, Palaka Prakashan, New Delhi.*

Applications of Anthropology

(4 credit, Theory: 45 hrs, Practical: 30 hrs)

Course Outcomes:

This course aims to impart knowledge on application of anthropology in addressing different issues associated human problems. The course also focuses on application of socio-cultural anthropology, archaeological anthropology and biological anthropology.

Learning Outcomes:

5. The students will learn about various applications of anthropological knowledge and techniques.
6. They will demonstrate the skill of application of socio-cultural anthropology, archaeological anthropology.
7. They will be able apply the knowledge of biological anthropology in bio-medical and legal aspects of human.
8. From the practical component they will learn about how to prepare report on an NGO or a project on tourism.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit I:

Applied Anthropology: meaning and scope, Action Anthropology and Development Anthropology; Engaged Anthropology, Experimental Anthropology; Trends in Anthropology: Anthropology of Tourism, Anthropology of Design and Fashion, Public Anthropology, Urban anthropology, Legal Anthropology and Customary law.

Unit II:

Applications of Social/Cultural Anthropology: Role of Anthropology in Development: Sustainable development, Anthropology and Community Development, Anthropology of NGOs, Management Anthropology, Business and Corporate Anthropology. Human Rights including the rights of special category and marginal groups, protection and enforcement of human rights; Human Development Index

Archaeology as Applied Anthropology, Bio-archaeology, Public archaeology, Recent Applications and Challenges: Conflict Resolution, Conservation, Cultural Identity and Representation, Cultural Tourism, Public Education, Resource Claims, Salvage Archaeology, Culture Recourse Management; Computational archaeology.

Unit III:

Applications of Physical Anthropology in legal settings: Forensic anthropology and Criminology; Conservation of non human primate, Public health and Nutritional Anthropology, Application of Physical Anthropology in Sports: Kinanthropometry, Industry and Ergonomics, Application of Physical Anthropology in Medicine and Genetics: Genetic Counseling, Genetic screening; Genomic studies: Pharmacogenomics and personalized medicine, Privacy and Ethics of doing research on human subjects.

Unit IV: Practical

4. Prepare a report based on a visit to a Government or Non-Government organization working on tribal and rural development (example: NGO, TRI, Micro-Projects, ITDA etc).
5. Preparation of a report of based on the visit to an archaeological site or archaeological museum.
6. Online searching of articles and books on human rights violation by state and nonstate actors.

Text book recommended:

- ✓ Vidyarthi, L.P. and B.N. Sahay. 2001. *Applied Anthropology and Development in India*. New Delhi: National Publishing House.
- ✓ Vidyarthi, L.P. 1990. *Applied Anthropology in India – Principles, Problems and Case Studies*. KitabMahal.
- ✓ Gisli, P. 2007. *Anthropology and the New Genetics*. Cambridge: Cambridge University Press.
- ✓ Mathur, H.M. 1978. *Anthropology in the Development Process*. New Delhi: Vikas Publishing House Pvt. Ltd.
- ✓ Mair, L. 1961. *Studies in Applied Anthropology*. London: University of London.

Minor (Paper-III)

Semester V/ VI

Introduction to Socio-Cultural Anthropology

(4 credit, Theory: 45 hrs, Practical: 30 hrs)

Course Outcomes:

This course aims to impart basic socio-cultural anthropological knowledge and its subject matter which includes meaning and scope of socio-cultural anthropology and culture and social institutions.

Learning Outcomes:

Unit-I: Student will learn about meaning, scope and different branches of sociocultural anthropology and basics of culture.

Unit-II: They will be acquainted with different concepts related to marriage, family and kinship.

Unit-III: They will also learn about primitive religion, political organization and economic organization in simple societies.

Unit-IV: From the practical component they will learn about different qualitative methods and techniques of socio-cultural anthropology.

Teaching Learning Process: Lectures and Discussions, Seminars and Presentations, Practical Classes

Assessment Methods: Examination schemes and mode shall be as prescribed by the University/ Higher education department from time to time.

Unit-I:

Meaning, Definition and Scope of Socio-Cultural Anthropology. Sub-Branched of Socio-Cultural Anthropology; Relationship with other disciplines; Distinction and similarities of Social/Cultural Anthropology from Sociology. Relevance of SocioCultural Anthropology today.

Culture: Meaning, Definition and characteristics; material and non-material culture; culture trait and complexes; Enculturation and Socialization. Society and Culture:

Comparison.

Unit-II:

Marriage: Concept, Meaning, definition and Function of marriage; Types of marriage: Monogamy, Polygamy (Polygyny and Polyandry), Levirate, Sororate, Cross-cousin and parallel cousin marriage; Ways of acquiring mates; Rules of marriage: Endogamy and Exogamy; Bride wealth/price, dowry and divorce.

Family: Meaning, Definition and Functions. Types of family: Joint family, Nuclear family/elementary/simple family, Extended family.

Kinship: Consanguineal and Affinal; Kin Term: Classificatory and Descriptive; Descent: Unilineal, Bilateral, Double Descent; Kinship Usages/Behaviour: Avoidance, Joking, Teknonymy, Amitate, Avunculate, Couvade.

Unit III:

Religion: Concept, Origin, Functions; Types: Animism, Animatisms, Bongaism, Fetishism, Totemism, Manaism, Magic, Witchcraft, Sorcery; Shamanism, Taboo, Sacred and Profane.

Economic Organization: Principles of production, distribution, consumption in simple and complex societies; Various forms of Exchange: Barter, Trade and Market; Reciprocities: Generalized, Balanced and Negative; Redistribution.

Political Organization: Concept of Power and Authority; Types of Authority: State and Stateless Societies (Band, Tribe and Chiefdom); Law and Justice in simple and complex society; Oath and Ordeal; Customary Law; Modern law and justice vrs Primitive Law and Justice

Unit-IV: Practical

Methods and Techniques of Social and cultural Anthropology: The practical will include preparation of a report based on application of any two methods mentioned below on any events, rituals, festivals, fairs, indigenous practices, dance, environment etc in the locality.

7. Ethnography
8. Observation
9. Interview
10. Genealogy
11. Case Study
12. Life History

Text book recommended:

- | | |
|---|---|
| ✓ | <i>Peter N. Peregrine Carol R. Ember, Melvin R. Ember (2020). Anthropology, 15th Edition, Pearson education, New Delhi</i> |
| ✓ | <i>Haviland W.A., Prins, H. E. L, Walrath D., McBride B (2009) Introduction to Anthropology. Cengage Learning India Private Limited, New Delhi.</i> |
| ✓ | <i>Scupin R., De Corse C. R. (2004) Anthropology – A Global Perspectives, PrenticeHall of India Private Limited, New Delhi.</i> |
| ✓ | <i>Roy I. B. (2013). Anthropology: The Study of Man, S Chand and Company Limited, New Delhi.</i> |
| ✓ | <i>Banerjee, H. N. (1994). Introducing Social and Cultural Anthropology, K. K. Publication, Calcutta.</i> |
| ✓ | <i>Kottak, C. P. (2014) Cultural Anthropology: appreciating cultural diversity, McGraw-Hill.</i> |
| ✓ | <i>Beals, R.L and H. Hoijer. 1971. An Introduction to Anthropology. 4th Ed. New York: Macmillan</i> |