DEPARTMENT OF ANTHROPOLOGY

Category-I
BSc. (Hons.) Environmental Science

DISCIPLINE SPECIFIC CORE COURSE -4 (DSC-4) – : Human Origins and Evolution

Credit distribution, eligibility and pre-requisites of the course:

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Human Origins and Evolution	4	3	0	1	12th Pass	----

Learning Objectives

1. The course will enhance students understanding of human variation in the light of human origins.
2. The course will help students to develop concepts pertaining to the relation of modern humans with living and non-living primates.

Learning Outcomes

Students will learn on evolutionary relationships of different extinct/hominids in the context of emergence of modern human beings. Students will also learn the gradual biological and behavioral processes of becoming human.

Syllabus:

Unit-1 **(12 Hours)**

Primate origins and radiation: phylogenetic relationships of living primates with special reference to Miocene hominoids

Unit-2 **(12 Hours)**

Australopithecines: distribution, features and their phylogenetic relationships. Appearance of genus Homo: Homo habilis

Homo erectus from Asia, Europe and Africa: Distribution, features and their phylogenetic status

Unit-3 **(12 Hours)**

The origin of Homo sapiens: Fossil evidences of Neanderthals.

Origin of modern humans (Homo sapiens sapiens): Archaic and Modern humans, Distribution and features

Unit-4 **(9 Hours)**

Hominization process: Bio-cultural Evolution

Practical – **30 Hours**

Craniometry:

a) Maximum Cranial Length
b) Maximum Cranial Breadth
c) Maximum Bizygomatic Breadth
d) Maximum Frontal Breadth
e) Minimum (Least) Frontal Breadth
f) Nasal Height
g) Nasal Breadth
h) Bi-Mastoid Breadth
i) Greatest Occipital Breadth
j) Upper Facial Height
k) Cranial Index
l) Nasal Index

Osteometry: Measurements of Human long bones (6)

Identification of casts of fossils of family hominidae: Drawing and comparison of cranial characteristics.

References

1. Indera P. Singh and Bhasin, M.K. (1968) Anthropometry. Kamla-Raj Enterprises, Chawri Bazar, Delhi.
2. Buettner-Janusch, J. (1966). Origins of Man: Physical Anthropology. John Wiley & Sons, Inc., New York, London, Sydney.
3. Craig Stanford et al. (2013). Biological Anthropology. Pearson, New York. [Unit-1: Page-261-300; Unit-2: Page-324-335; Unit-3: Page-342-375; Unit-4: Page-382-412; Unit-5 and 6: Page-418-441]
4. Nystrom P. and Ashmore P. (2011). The Life of Primates. PHI Learning Private Limited, New Delhi.
5. Seth P. K. and Seth S. (1986). The Primates. Northern Book Centre, New Delhi, Allahabad.
6. Singh I. P. and Bhasin M.K. (1989). Anthropometry: A Laboratory Manual on Biological Anthropology.
7. Stanford C.; Allen J.S. and Anton S.C. (2012). Biological Anthropology: The Natural History of Mankind.
8. Swindler D. R. (2009). Introduction to the Primates. Overseas Press India Pvt. Ltd., New

Keywords

Human origin, Primates, Australopithecine, Homo erectus and evolution

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.