

UNIVERSITY OF DELHI

CNC-II/093/1(25)/2023-24/72

Dated: 21.06.2023

**NOTIFICATION**

Sub: Amendment to Ordinance V

[E.C Resolution No. 60-1/(60-1-6/-) dated 03.02.2023]

Following addition be made to Appendix-II-A to the Ordinance V (2-A) of the Ordinances of the University;

**Add the following:**

**Syllabi of Semester-III of the following departments under Faculty of Science based on Under Graduate Curriculum Framework -2022 implemented from the Academic Year 2022-23.**

**FACULTY OF SCIENCE**

**DEPARTMENT OF ANTHROPOLOGY**

**BSC. (HONS.) ANTHROPOLOGY**

**DISCIPLINE SPECIFIC CORE COURSE -7 (DSC-7)**  
**Fundamentals of Human growth and development**

**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		
Fundamentals of Human growth and development - DSC-7	04	03	Nil	01	Passed 10+2 with Science	NIL

**Learning objectives**

- Students will be able to learn about various stages and environmental factors involved in human growth and development which help them in understanding growth monitoring of a child.
- They will understand the role played by balance diet in leading a healthy life.

## **Learning outcomes**

By studying this course, students will be able to

- Differentiate the term- growth, maturation and development.
- Understand the basic principles of human growth and development
- Comprehend the significance of growth studies

## **Syllabus of DSC-7**

### **Unit 1: Introduction to Human growth and development (6 hours)**

Concept of human growth, development, differentiation and maturation. Evolutionary perspective of human growth (including living primates and fossil hominid ancestors)

### **Unit 2 : Stages and process involved in growth and development (9 hours)**

Prenatal (conception till birth) and postnatal (birth till senescence) periods of growth, physical, cognitive and psycho-social development from conception through adulthood, patterns of normal growth curves, variation from normal growth (canalization, catch-up growth and catch-down growth), secular trend

### **Unit 3 : Factors and Methods related to growth and development (8 hours)**

Bio-cultural factors (genetic, socio-cultural and ecological factors) influencing patterns of human growth and variation, methods and techniques to study growth, significance/applicability of growth studies; Impact of life-changing health parameters on development of infants, children, adolescents and adults

### **Unit 4: Relevance of Nutrition in growth studies (7 hours)**

Importance of Nutrition in various stages of growth and development, Balanced diet, Malnutrition, Assessment of Nutritional status

### **Unit 5: Role of body physique and composition in growth process (9 hours)**

Human physique and body composition - models and techniques; bisexual and endogamous group differences; Somatotyping and human physique with reference to Sheldon, Parnell, Heath and Carter methods

### **Unit 6: Adaptation in growth and development (6 hours)**

Impact of bio-cultural adaptation to environmental stresses on human growth. Homeostasis and thermoregulation

## **Practical (30 Hours)**

### **Somatometry:**

Stature, Body weight, Mid upper arm circumference, Minimum waist circumference, Maximum hip circumference, Upper extremity length, Lower extremity length, Biacromial breadth, Bicristal breadth), Assessment of chronological age, Percentile, z-score, height for age, weight for age, BMI for age

## **Obesity assessment**

General adiposity indices: BMI, body fat %, Conicity index,

Regional adiposity indices: WC, WHR, WHtR

Assessment of body composition with skinfold thickness and bioelectric impedance

## **References**

Growth, maturation & physical activity (2004) Malina, Robert M; Bouchard, Claude, Bar-Or, Oded. Human Kinetics.

Human growth and development by Cameron Noel (2002). St. Louis, Academic Press.

Patterns of human growth by Bogin, Barry (1999). Cambridge University Press.

Human biology: An introduction to human evolution, variation, growth & adaptability by Harrison, GA; Tanner, JM; Pilbeam, DR; Baker PT (1988). Oxford, England, Oxford University Press.

Proceeding on Human Physical Growth and Maturation by eds. Johnson, FE, Roche, AF, Susanne, C, (1980). Plenum Publishing Corporation.

Applied body Composition Assessment (2009) Heyward, VH; Wagner DR. Human Kinetic.

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