

Course Specification Student Version

Course Title:	Growth, Development and Aging
Course Code:	GAD 203
Department:	Basic Medical Sciences
Program:	Bachelor of Medicine and Surgery
College:	Vision College in Riyadh
Institution:	Vision College in Riyadh
Revised:	June 2025

A. Course Identification

1. Credit hours: 4 (2+1+1)
2. Level/year at which this course is offered: Level 3/Year 2)
3. Pre-requisites for this course (if any): PHYS 101, CHEM 101, BIOL 101 and ENGL 105
4. Co-requisites for this course (if any): None

B. Teaching Methods

1	Lectures
2	Practical Sessions
3	Seminars
4	Assignments

C. Course Description and Main objective

1. Course Description

- The course includes relevant basic sciences; embryology (process of fertilization, implantation, and organogenesis), physiology (physiological changes of pregnancy, sexual maturation, hormonal changes during adolescence and physiological changes in elderly), pediatrics and family medicine (growth charts, milestones, and health issues during childhood and adolescence). In addition, the students study health care services provided to mothers, children and the elderly.

2. Course Main Objective:

This course aims to introduce the students to the principles and stages of human growth from the time of gametocytes formation and conception through pre-natal, post-natal, childhood, adolescence, adulthood, and senescence.

3. Course Objectives

By the end of this course, students should be able to:

- Describe the structure of the different components and function of the reproductive system in both sexes
- **Describe different steps of spermatogenesis and oogenesis**
- **Define and describe phases of fertilization**
- **Describe the different stages of conception from zygote to blastocyst**
- **Describe the bilaminar germ disc**
- **Describe the normal process of development of the three germinal layers (Ectoderm, mesoderm & endoderm)**
- **Explain the important functions of the placenta**
- **Define fetal hypoxia /birth asphyxia and discuss its consequences.**
- **Describe the different changes accompanying the weeks of fetal development**
- **Describe the physiological changes with pregnancy and EDD calculation**
- Describe stages of labour and Apgar score
- Describe the physical growth & development of normal neonate, infants, children & Adolescent

- Understand the physiological changes of aging
- Gain awareness of chronic diseases and their impact on older adults
- Understand the importance of health promotion activities

D. Course Content

No.	List of Topics
1	Anatomy, histology and physiological features of the Male and Female Reproductive Systems (14 hours)
2	Embryological Development from Fertilization to Birth (24 hours)
3	Clinical Manifestations from Pregnancy to Old age (22 hours)

E. Assessment tools

#	Assessment task	Percentage of Total Assessment Score
1	Seminar evaluation	10%
2	Quizzes/Assignments evaluation	10%
3	Midterm Exam	20%
4	Final Written Exam	40%
5	Final OSPE	20%
	Total	

F. Learning Resources

Essential References	<p>1) Clinical Anatomy. R. Snell, 18th edition. Lippincott, Williams and Wilkins, 2018.</p> <p>2) Langman's Medical Embryology. T.W. Sadler, 14th edition. Lippincott, Williams & Wilkins, 2018.</p>
Supportive References	<p>1) Nelson Essentials of Pediatrics. Robert Kleighman and Richard Behrman, 18th edition. Saunders, 2018</p>
Electronic Material	LMS resources