**LECTURE SYLLABUS**

**(General medicine, dental medicine)**

**Pathophysiology of growth and development**

**1. Introduction**

Congenitally and environmentally conditioned features of the ontogenetic development,

Cellular mechanisms of the development;

Altricial and precocial type of the development

**2. Body systems and other factors having a decisive influence on the progress of individual developmental changes**

Nervous system, brain growth spurt

Endocrine system and humoral regulatory mechanisms

Metabolism and nutrition

Circulation

Immunological functions

Respiration, lungs, surfactant;

**3 Pathophysiological characteristics of individual developmental phases of human ontogenesis**

**Prenatal period**

Critical – sensitive periods in individual periods of human ontogeny

Embryo – fetus

Gametopathies

Blastopathies

Embryopathies; congenital malformations, teratology

Fetal growth during pregnancy

**Perinatal period**

Birth complications (hypoxia, trauma)

**Postnatal development**

Developmental periods, their characteristics

Neonatal and infant period

Adolescence puberty growth spurt menopause climacterium (climax)

Somatic development – proportional, disproportional, secular trend

Functional development

Afferent impulses; their multiplicity

Emotional development; stimulation, deprival syndrome