

## Course Specification Student Version

<b>Course Title:</b>	General Physiology - 2
<b>Course Code:</b>	PSL 212
<b>Department:</b>	Basic Medical Sciences
<b>Program:</b>	Bachelor of Dentistry
<b>College:</b>	Vision College in Riyadh
<b>Institution:</b>	Vision College in Riyadh
<b>Revised:</b>	July 2025

## A. Course Identification

1. Credit hours: 2 (1+1+0)
2. Level/year at which this course is offered: Level 4/Year 2
3. Pre-requisites for this course (if any): PSL 211
4. Co-requisites for this course (if any): None

## B. Teaching Methods

1	Lecture
2	Assignment
3	Practical session

## C. Course Description and Objectives

### 1. Course Description

This course provides fundamental information necessary for understanding the functional aspects of various systems in the living body along with the emphasis on the regulatory mechanism that maintain the normalcy of the functions within narrow limits. It forms the strong foundation on which other medical fields are constructed. The primary aim of this course is to meet the needs of the dental students in getting knowledge of recent developments in the field of physiology and in knowing the important applied aspects of various topics.

### 2. Course Main Objective

This course is designed to provide students with an understanding of the function & regulation of the human body and physiological integration of the organ systems to maintain homeostasis.

At the end of the course the student should be able to:

Identify the functions of digestive system, Compare the structure-function relationship of different digestive organs, Recognize the mechanisms of body temperature regulation, Describe the different steps of urine formation, Explain the basis for maintaining acid-base balance, Integrate the concepts of water-electrolyte and acid-base balance, Describe the basis of control of hormone release, Identify the functions of major endocrine organs, Recognize the functional classification of nervous system, Correlate between the neuron structure and its function, Compare and contrast major functions of the two divisions of autonomic nervous system and Describe the functions of special sense organs.

### 3. Course Objectives

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

- Describe the theoretical knowledge of physiology related to dental sciences.
- Explain the normal function of the teeth and associated soft and hard tissue structures.

- Apply different preclinical physiological procedures relevant to the dental practice.
- Establish collaborative teamwork and leadership responsibility in dental practice.

#### D. Course Content

No	List of Topics
1	Neural control and motility of the GIS
2	Functions of the salivary glands
3	Functions of the stomach and gastric motility
4	Functions of the pancreas and liver
5	Mechanisms of hormone actions
6	The hypothalamus, the anterior and posterior pituitary glands
7	Functions of the thyroid gland
8	Functions of the parathyroid glands and calcium homeostasis
9	Functions of the adrenal glands
10	Functions of the pancreas and glucose homeostasis
11	Functions of the kidneys and the glomerular filtration rate
12	The pyramidal system
13	The extrapyramidal system
14	The sensory system and pain sensation
15	Functions of the cerebellum and basal ganglia

#### E. Assessment Tools

#	Assessment task	Percentage of Total Assessment Score
1	Quizzes	10 %
2	Assignment/Seminar Presentation	10 %
3	Practical examinations	20 %
4	Midterm exam	20 %
5	Final examination	40 %
	<b>Total</b>	<b>100%</b>

#### F. Learning Resources

<b>Essential References</b>	<ul style="list-style-type: none"> <li>• Essentials of Physiology For Dental Students, first edition. K Sembulingam &amp; P Sembulingam. Jaypee, 2011.</li> </ul>
<b>Supportive References</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Electronic Materials</b>	<ul style="list-style-type: none"> <li>• Pub Med NLM</li> <li>• www.studentconsult.com</li> </ul>
<b>Other Learning Materials</b>	<ul style="list-style-type: none"> <li>• Computer-based programs/CD, professional standards or regulations and software</li> </ul>