Department of Respiratory Care

Course Specification of

Cardio-Pulmonary Physiology

Course No. (**08 05 565**)

2024/2025

XVI. Course Description:
This course explores the fundamental physiology principles and interactions of the heart and lungs. Students will examine cardiopulmonary development, ventilation, gas exchange, cardiac electrophysiology, and hemodynamics. The course also covers the impact of aging, renal function, sleep, exercise, and environmental factors (like high altitude) on cardiopulmonary function.

V. Course Content:

Distribution of Semester Weekly Plan of Course Topics/Items and Activities.

A – Theoretical Aspect:

Order	Topics List	WeekDue	Contact Hours
1	Fetal Development and the Cardiopulmonary System	1	2
2	Ventilation-Perfusion Relationships	2	2
3	Control of Ventilation	3-4	4
4	Aging and the Cardiopulmonary System	5	2
5	Electrophysiology of the Heart	6	2
6	The Standard 12-ECG System	7	2
7	ECG Interpretation	8	2
8	Midterm Exam	9	2
9	Hemodynamic Measurements	10	2
10	Renal Failure and Its Effects on the CardiopulmonarySystem	11	2
11	Sleep Physiology and Its Relationship to theCardiopulmonary System	12	2
12	Exercise and Its Effects on the Cardiopulmonary System	13	2
13	High Altitude and Its Effects on the CardiopulmonarySystem	14	2
14	High-Pressure Environments and Their Effects on the Cardiopulmonary System	15	2
15	Final exam	16	2
Number of Weeks /and Units Per Semester		16	32

VI. Teaching strategies of the course:

22. Lecture method
23. Brainstorming
24. Demonstration
25. Case study discussions

VII. Schedule of Assessment Tasks for Students during the Semester

Theoretical part

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Attendance andActivities	15th week	5	5%	a, b
2	Student assignment	5th and 12th week	5	5%	a, b,
3	Mid-term exam	7th or 8th week	20	20%	a, b
4	Final exam	16th-17th week	70	70 %	a, b, c, d
Total Theory Weight			100	100%	