



Study Plan: Master, Higher Diploma, High specialization	Form Number	EXC-01-03-04A
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1.	School	School of Medicine
2.	Department	Public Health Institute
3.	Program title (Arabic)	الدبلوم العالي في المعالجة التنفسية
4.	Program title (English)	Higher diploma in Respiratory Care
5.	Track	NA

Plan Number	Specialization #	Degree	Department #	School #	Year	Track
			00	41	2024	NA

First: General Rules & Conditions:

1. This plan conforms to the valid regulations of the programs of graduate studies.

2. Specialties of Admission:

First Priority: They will receive 75% of the seats.

Bachelor's degree in Physiotherapy (physical therapy), Nursing, Medicine, Anaesthesia technology (related sciences), Respiratory therapy and paramedical sciences from the University of Jordan or any University recognized by the Ministry of Higher Education and Scientific Research.

Second priority: They will receive 25% of the seats or more if the first priority seats are not full:

BSc degree holders in the following specialties:

Pharmacy, Doctor of pharmacy, biology, chemistry, laboratory sciences, exercise physiology, radiologic technology and biomedical engineering, who earned on job training courses for respiratory care and who were/are working in accredited hospitals and/or health institutions in respiratory care departments for more than 3 years.

Third: The curriculum for the higher diploma degree in Respiratory Care Program consists of (24) credit hours distributed as follows

1. Obligatory Courses (21) credit hours:

Course Number	Course Title	Contact Hours		Credit Hours	Pre-requisite
		Theoretical	Practical		
4101514	Respiratory care therapeutics and respiratory diseases	1	4	2	
4101515	Respiratory physiology	1	4	2	
4101505	Neonatal and Paediatric respiratory care	1	4	2	
4101702	Introduction to healthcare management	3	-	3	
4101502	Mechanical ventilation	1	8	3	4101514 & 4101515
4101516	Pulmonary Rehabilitation	1	4	2	4101515
4101517	Fundamentals of Polysomnography	1	4	2	
4101509	Cardiopulmonary Intensive Care	1	4	2	4101514
4101518	Clinical respiratory care	-	Logbook of 228 practical hours in the hospital	3	4101514 & 4101502

2. Elective Courses (3) Credit Hours: from the following:

Course Number	Course Title	Contact Hours		Credit Hours	Pre-requisite
		Theoretical	Practical		
4101519	Exercise Prescription in cardiopulmonary disease	3	-	3	
4101520	Evidence-based practise in respiratory care	3	-	3	
1801704	Measuring and Analysing Health Outcomes	3	-	3	

3. Courses offered by other faculties/schools and departments Physiotherapy (elective course)

Course Number	Course Title	Contact Hours		Credit Hours	Pre-requisite
		Theoretical	Practical		
1801704	Measuring and Analysing Health Outcomes	3	-	3	

* Notes:

Fourth: Course Description

Course Number 4101514	Course Title Respiratory care therapeutics and respiratory diseases	Credit Hours 2
Prerequisite: None		
Course Description: This course provides core knowledge of essential respiratory care procedures such bronchial hygiene therapy, aerosol therapy, airway management, manual/gas-powered resuscitators, oxygen therapy, humidity, medical gases, and oxygen analysers. This course also includes an overview of some respiratory diseases such as: diseases of the airways, infectious diseases of the lung, neoplastic lung diseases, Interstitial Lung Disease, Embolic and Thromboembolism diseases of the lung, Pulmonary Oedema, Pleural Disease, Environmental Lung Diseases and respiratory failure. Students will become a quested with the pathogenesis, pathophysiology, clinical pictures, investigations procedure and line of treatment for these diseases.		

Course Number 4101515	Course Title Respiratory physiology	Credit Hours 2
Prerequisite: None		
Course Description: This course provides core knowledge of the structure and function of the respiratory system with the clinical application of basic physiological principles. In this course the student will learn how to make an arterial puncture, heel sticks and sampling from arterial line then analyse and interpret the results of the sample and relate it to the physiological and clinical condition of the patient. Also, in this course the students will learn how to make the calibration and quality control of Automated Blood Gas Machine. In addition, non-invasive monitors and .Sampling Errors, Blood Gas Electrodes and Quality Assurance will be introduced Basic physiology such as Pulmonary Ventilation, The diffusion of Pulmonary Gases, Acid -Base homeostasis, Control of ventilation, Regulation of Acid, Base and Electrolyte, Ventilation-Perfusion relationships (External respiration), Oxygen and carbon dioxide transport (Oxygen transport and internal respiration), Assessment of Hypoxemia and Shunting, Non-invasive Techniques, Differential Diagnosis of Acid-Base Disturbances. This course will also provide an overview of the most widely used pulmonary function testing. Criteria for judging the acceptability and reproducibility of test data are provided. Bronchodilator studies to determine reversibility of airway obstruction are also presented. Advanced indirect test measurement will be covered such as: Indirect spirometry, body plethysmographs, tests for pulmonary gas distribution, tests for		



pulmonary gas diffusion, bronchial challenge tests, exercise challenge, and Cardiopulmonary stress testing.

Course Number	Course Title	Credit Hours
4101505	Neonatal and Paediatric respiratory care	2
Prerequisite: None		
Course Description: This course is designed to cover major aspects of neonatal and paediatric respiratory care. The course involves the study of topics about fetal lung development, fetal circulation, cardiopulmonary transition at birth, neonatal and paediatric resuscitation, neonatal and paediatric assessment, respiratory care procedures, common respiratory diseases in neonates and paediatrics and their proper management.		

Course Number	Course Title	Credit Hours
4101702	Introduction to healthcare management	3
Prerequisite: None		
Course Description: This course provides a review of management as an area of theoretical development as well as a field of practice. Main blocks of the course are functions of management, classical management theories, managerial processes, and interaction between organizations and their environment. The course includes elements of planning, organizing, organizational behaviour, human resources, leadership, communication. Business cases are used as application for theoretical concepts. As the student progresses through the management principles, it will become apparent that many of the same principles are used in business but are applied to healthcare in general. The major difference between health care and business is the product: Health care is caring for individuals' health.		

Course Number	Course Title	Credit Hours
4101502	Mechanical ventilation	3
Prerequisite: Respiratory care therapeutics and respiratory diseases & Respiratory physiology) (4101514 & 4101515)		
Course Description: This course provides core knowledge and skills necessary for the initiation, application, and monitoring of mechanical ventilation; advanced concepts of mechanical ventilation will be introduced to manage patients with variety of cardiopulmonary disorders. Topics such as: Modes of mechanical ventilation, Waveform analysis, Management of MV, Pharmacology for MV, Weaning from MV, Home MV, advanced ventilator modes. Nutritional considerations for MV and use of special techniques in mechanical ventilation will be also discussed in detail with applied cases.		

Course Number	Course Title	Credit Hours
4101516	Pulmonary Rehabilitation	2
Prerequisite: Respiratory physiology (4101515)		
Course Description: This course is designed to provide students with comprehensive information on the structure of pulmonary rehabilitation program and the role of the respiratory care practitioner in this program. This course provides information about the pharmacological and nutritional profile of chronic pulmonary disorders, smoking cessation program, travel with pulmonary disorders, health education, therapeutic respiratory exercise and respiratory home care.		



Course Number	Course Title	Credit Hours
4101517	Fundamentals of Polysomnography	2
Prerequisite: None		
Course Description: This course is designed to give students an overview of current knowledge of sleep medicine, sleep disorders, and event recoding during sleep (polysomnography). Students will be introduced to the fundamental procedures of recording events during sleep. Common sleep-related respiratory disorders will also be discussed.		

Course Number	Course Title	Credit Hours
4101509	Cardiopulmonary Intensive Care	2
Prerequisite: Respiratory care therapeutics and respiratory diseases (4101514)		
Course Description: This course provides the students with core knowledge with different essential monitoring and diagnostic techniques and modalities for patients with cardiopulmonary disorders in the intensive care unit (ICU). Students will be able to monitor cardiac function, interpret basic ECG rhythms, know common medications used in ICU, know how to assist bronchoscopy and other critical procedures carried out in the ICU. Students will be able to perform cardiopulmonary assessment, chest x-ray interpretation in the critical care settings, and management of trauma and post-cardiothoracic surgical care.		

Course Number	Course Title	Credit Hours
4101518	Clinical respiratory care	3
Prerequisite: Respiratory care therapeutics and respiratory diseases & Mechanical Ventilation (4101514 & 4101502)		
<p>Course Description: Clinical Respiratory Care is designed for the students in which they will be exposed to the hospital environment and experience contact with other health care professionals and ancillary personnel. During this course, they will be participating with various respiratory care procedures involving from initial patient assessment up to the application of the required therapy which have been covered in previous courses .</p> <p>Students will be exposed to advanced respiratory care procedures that require the student to develop further their critical thinking skills as well as prepare them mentally, psychologically and emotionally to provide respiratory care to critically ill patients in need of mechanical ventilation and other advanced cardiopulmonary life support within the scope of respiratory care. It also provides experience on the basic and advanced cardiopulmonary function testing, and exercise prescription. In this clinical training, students will be required to cover different shifts in the hospital departments. Students must cover 228 hours of clinical practice in this course.</p> <p>Student will be monitored and supervised and evaluated by clinical instructor.</p> <p>Students can start with the clinical practice hours by the start of the second term but conditional with not exceeding 50% of these hours during the second term.</p>		

Course Number	Course Title	Credit Hours
4101519	Exercise Prescription in Cardiorespiratory Conditions	3



Prerequisite: None	
Course Description: This course aims at preparing students to understand and provide the theoretical and practical skills of the cardiorespiratory response to exercise. In addition, students will learn how to prescribe exercises as an intervention for prevention and treatment in people with cardiorespiratory conditions based on a thorough and evidence-based assessment. The practical part of this course will be applied during clinical respiratory care course.	

Course Number	Course Title	Credit Hours
4101520	Evidence-based practice in respiratory care	2
Prerequisite: None		
Course Description: This course aims to provide advanced knowledge of research methods often used in developing practices in respiratory care. The course focuses on research training methods used in various health specialties including respiratory care and rehabilitation. The nature of scientific research and statistical techniques will also be discussed. Through this course, students will be able to critique quantitative and qualitative studies in the field of respiratory care.		

Course Number	Course Title	Credit Hours
1801704	Measuring and Analysing Health Outcomes	3
Prerequisite: None		
Course Description: This course includes presenting the theoretical and practical foundations of measurement in rehabilitation sciences, in the research and practical fields, specifically, in physiotherapy. The psychometric properties of tests of body functions, activities, and the role and contribution of the individual to society will be reviewed. In addition to the above, the course will cover measurement theories, development of scales, statistical analyses, and methods and tools used in evaluating research and practice outcomes.		

Fifth: Advisory Study Plan

(1) Year

(1st) Semester			(2nd) Semester		
Course Number	Course Title	Credit Hours	Course Number	Course Title	Credit Hours
4101514	Respiratory care therapeutics and respiratory diseases	2	4101502	Mechanical ventilation	3
4101515	Respiratory physiology	2	4101516	Pulmonary Rehabilitation	2
4101505	Neonatal and Paediatric respiratory care	2	4101517	Fundamentals of Polysomnography	2
4101702	Introduction to healthcare management	3	4101509	Cardiopulmonary Intensive Care	2
Total		9	Total		9

(Summer) Semester



Course Number	Course Title	Credit Hours
4101518	Clinical respiratory care	3
	Elective course	3
Total		6