

Sub.	Course Description – توصيف مقرر دراسي	الموضوع	 كلية المعرفة ALMAAREFA COLLEGE
Date	22/12/2015	التاريخ	

Course Code & No	RSTH 342	تنفسي ٣٤٢	رقم المقرر ورمزه
Course Name	Respiratory care science II	علم الرعاية التنفسية ٢	اسم المقرر
Credit Hours	٤	٤	عدد الساعات المعتمدة
Pre-requisite	Respiratory care science I	علم الرعاية التنفسية 1	المتطلب السابق

General Description	توصيف عام
<p>This course is designed to give the students a detailed view over topics that cover various aspects of respiratory care science such as; respiratory care basic therapeutics, respiratory care applied anatomy and physiology, and finally it will also draw the focus on the assessment of respiratory disorders through the analysis and motoring of gas exchange.</p>	

Course Objectives	أهداف المقرر
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<ol style="list-style-type: none"> 1. Define and perform airway management techniques such as; suctioning, establishing an artificial airways and assist the physician during the bronchoscopy procedure. 2. Describe and perform basic emergency cardiovascular life support (BLS) and actively participate with the medical staff during the advanced cardiovascular life support (ACLS). 3. Describe how normal airway clearance mechanisms work, identify pulmonary diseases associated with abnormal clearance of secretions, describe and evaluate the proper techniques and the potential benefits of the various airway clearance techniques such as: postural drainage, directed coughing and related expulsion techniques, positive expiratory pressure therapy, high frequency compression/oscillation methods, mobilization and exercise. 4. Describe the various causes of atelectasis, identify the need of the lung expansion therapy, describe how the lung expansion therapy works, and list the indication, contraindications, hazard, and complications of lung expansion therapy. 5. Describe how the lungs and kidneys will regulate volatile and fixed acids, explain how to use the Henderson- Hasselbach equation in hypothetical clinical situations, explain how to use arterial acid-base information to decide on a clinical course of action, and calculate anion gap and use it to determine the cause of metabolic acidosis. 6. Describe the difference between monitoring and analysis, describe the two types of electrochemical oxygen analyzers, describe the calibration and problem-solving techniques for oxygen analyzers, state how to obtain, process, and analyze arterial and capillary blood gases. 7. Describe how to obtain and interpret transcutaneous oxygen and carbon dioxide monitoring, state when and how to perform a pulse oximetry and describe how to perform capnometry and interpret capnograms. 8. Perform and apply the various therapeutic procedures such as; (suctioning, establishing artificial airway etc.), and operate, troubleshoot the various equipment used during the patient monitoring and while performing the lung expansion therapy. 	
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Course Outlines	مفردات المقرر
<ol style="list-style-type: none"> 1. Course Introduction 2. Airway Management 3. Airway Management 4. Emergency Cardiovascular Life Support 5. Emergency Cardiovascular Life Support 6. Airway Clearance Therapy 7. Airway Clearance Therapy 8. Lung Expansion Therapy 9. Lung Expansion Therapy 10. Acid- Base Balance 11. Acid- Base Balance 12. Analysis and monitoring of gas exchange 13. Analysis and monitoring of gas exchange 	

References	المراجع
<ol style="list-style-type: none"> 1. Egan's Fundamentals of Respiratory Care. Kacmarek, Stoller and Heuer, 10th Edition, Mosby, 2012. 	