

**University: Beni-Suef**

**Faculty of Physical Therapy**

**Department of : : Department of Physical Therapy for Internal medicine**

### **Course Specifications**

<b>1. Basic Information:</b>		
<b>Code No.:</b> PT 308	Course Title: Physical therapy for cardiothoracic surgery	<b>Academic Year:</b> 3 <sup>rd</sup> year S1 - 2015/2016
<b>Teaching Hours:</b> <b>Lecture: 1 H/W    Applied: 2 H/W    Total: 3 H/W</b>		<b>Specialization:</b> Bachelor of Physical Therapy

### **2. Aims:**

By successful completion of the course the student should be able to:

- Provide the student with the basic principles of physical therapy theories for cardiothoracic surgeries.
- Offer the student the basics of evaluation techniques employed in such surgeries with emphasis on the integration of theoretical and practical information for the benefits of patients with different cardiothoracic surgeries.
- Offer the students the basics of physical therapy management of patients at critical care units.

### **3. Intended Learning Outcomes of the Course (ILOs)**

#### **a- Knowledge and Understanding:**

By successful completion of the course the student should be able to:

- a1- Explain the various physical therapy techniques, modalities and methods employed in evaluation and treatment of cardiothoracic surgeries.
- a2- Recognize the interactions of common cardiothoracic surgeries complications and physical therapy intervention
- a3- Understand normal and abnormal responses to exercising a patient suffering from cardiothoracic surgery.
- a4- Identify functional status assessment of patient introduced to cardiothoracic surgery.
- a5- Understand Components of pre-operative physical therapy management.
- a6- Recognize Post-operative Physical Therapy Management and different physical therapy interventions

a7- Discuss various interventions for patient admitted at postoperative intensive care unit

**b- Intellectual Skills:**

**By successful completion of the course the student should be able to:**

- b1- Develop an appropriate sternal precautions and sternal instability management following median sternotomy
- b2- Synthesize physiotherapeutic approach after extubation.
- b3- Effectively employ all means available to the therapist, including:
  - a- activity modification
  - b- physical, mechanical and electrotherapeutic measures.
  - c- referral to medical or other paramedical professionals.
- b4- Apply and compare different positive pressure techniques for postoperative patients
- b5- Compare and contrast between various effects of medications on ICU patient
- b6- Analyze the protocols used in evaluating, monitoring and rehabilitating patients after cardiothoracic surgeries

**c- Professional and Practical Skills:**

**By successful completion of the course the student should be able to:**

- c1- Apply appropriate physical examination techniques to assess sternal instability after median sternotomy
- c2- Practice safely physical therapy techniques in tutorials before applying on patients.
- C3- Perform a cardiopulmonary evaluation based upon information from ICU monitoring Systems
- c4- Design and adapt rehabilitation program to different cases of cardiothoracic surgeries with adjusted monitoring equipment.
- c5- Consider ethical and legal issues in relation to practice of physical therapy.
- c6- Conduct efficiently skills of manual therapy including mobilization, soft tissue manipulation and respiratory therapy technique with continual analysis and evaluation outcome.
- c7- Design physical therapy program for patients subjected to lung surgery

**d- General and Transferable Skills:**

**By successful completion of the course the student should be able to:**

- d1- Display the potential for competence and attitudes required for professional work including interaction with other allied health professionals.
- d2- Manage changes and respond to changing demands.

**4. Contents**

Serial No.	Topic	No. of hours/Week		
		Theoretical	Applied	Total
1	Different cardiothoracic surgical approaches -Post Cardiothoracic Surgery Complications	1	2	3
2	Median sternotomy, sternal complications and Sternal instability	1	2	3
3	Components of pre-operative physical therapy management-Functional Status	1	2	3

	assessment			
4	Post-operative Physical Therapy Management	1	2	3
5	Sternal precautions and Sternal instability management	1	2	3
6	Patient admission at postoperative intensive care unit -Physiotherapeutic approach after extubation	1	2	3
7	Positive pressure techniques for postoperative patients	1	2	3
8	Intensive care unit (ICU) types, admission and discharge.	1	2	3
9	ICU Monitoring Systems	1	2	3
10	Effect of medications on ICU patient	1	2	3
11	Physical therapy goals & methods for patients in the icu	1	2	3
12	Physical therapy for lung surgery	1	2	3

<p><b>5- Teaching and Learning Methods</b></p> <ul style="list-style-type: none"> <li>• Lectures</li> <li>• Practical lessons</li> </ul>	
<p><b>6- Teaching and Learning Methods for limited abilities</b></p> <ul style="list-style-type: none"> <li>• Not applicable</li> </ul>	
<p><b>7- Student Assessment</b></p>	
<p><b>a. Assessment methods</b></p> <ul style="list-style-type: none"> <li>• Final written exam to assess Knowledge, Understanding and Intellectual skills.</li> <li>• Midterm exam to assess Professional and Practical skills.</li> <li>• Practical (Applied) exam to assess Professional and Practical skills.</li> <li>• Oral exam to assess Knowledge, Understanding, Intellectual and General Skills.</li> <li>• Assignments to assess Knowledge, Understanding and Intellectual skills.</li> </ul>	
<p><b>b. Assessment Schedule</b></p>	
<b>Assessment</b>	<b>Week</b>
Final written exam	<b>By the end of 12<sup>th</sup> week</b>
Midterm exam	<b>By the end of 9<sup>th</sup> and 10<sup>th</sup> week</b>

Practical exam	<b>By the end of 12<sup>th</sup> week</b>
Oral exam	<b>By the end of 12<sup>th</sup> week</b>
Assignment	<b>By the end of 8<sup>th</sup> week</b>
<b>c. Weighting of Assessments</b>	
<b>Assessment</b>	<b>Weight</b>
Final written exam	<b>50 %</b>
Midterm exam	<b>10 %</b>
Practical exam	<b>15 %</b>
Oral exam	<b>15 %</b>
Assignment	<b>10 %</b>
<b>Total</b>	<b>100%</b>
<b>8- List of References</b>	
<b>A. Course Notes</b>	
<b>Tamer I. AboElyazed (2016) physical therapy for cardiothoracic sugery.</b>	
<b>B. Essential Books (Text Books)</b>	
Physiotherapy for Cardio-respiratory Cardiac Surgery and Thoracic Surgery Conditions(2008)	
<b>C. Recommended Books</b>	
1.Physiotherapy in Respiratory Care(2003)	
2.Non Invasive Ventilation Linda Grady Clinical Nurse Specialist (2010)problems 2nd edition.	
<b>D. Periodicals, Web Sites, ... etc</b>	
1 - American Physical therapy Journals .	
2- Physical therapy in chest Journals.	
3 - Chest Physical Therapy Journal.	
4- Cardiology.	
5- Association of Academic Physiatrists WWW:<URL: <a href="http://al.com/aap/index.html">http://al.com/aap/index.html</a> >	
6- Physiotherapy Home Page WWW:<URL: <a href="http://cutl.city.unisa.edu.au/pt/">http://cutl.city.unisa.edu.au/pt/</a> >	
7- Rehabilitation and Physical Medicine.	
Mailing List Name: REHAB-RU	
Address;Lister\"@ukcc.uky.edu	
8- Respiratory Medicine. WWW:<URL: <a href="http://www.njc.org/MFhtml/MFlist-subj.html">http://www.njc.org/MFhtml/MFlist-subj.html</a> >	
9- American Heart Association.	
Gopher Name: The American Heart Association.	
Address: gopher, amhrt. org	
10- High Blood Pressure Education Program	
Gopher Nam: National Heart, Lung, and Blood Institute	
Address: fido.hnlbi.nih.gov	
WWW:<URL: <a href="http://gopher://Hdo.nhlbi.nih.gov:70/ll/educprog/nhbpep">gopher://Hdo.nhlbi.nih.gov:70/ll/educprog/nhbpep</a> >	
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**Course Coordinator:**

**Head of Department:**

Dr. Tamer I. Abo Elyazed  
**Signature:**

**Date:** / / 20

Prof .Dr . Sherin Hassan Mohammed  
**Signature:**

**Date:** / / 20

**The course specification is revised and approved in the department council.**

**Date:** / / 20