

## Course Overview

### Medical instrument II

Course code :	AMT 503
Course title:	Medical instrument II
Level/semester:	Fifth Semester
Preceding Courses & Main Subjects	- Medical instrument I
Credit hours: 3	Theoretical: 2
	Practical: 1

### Course content (theory)

التمرينات العملية	عدد الساعات	عدد المحاضرات	الموضوعات الرئيسية التي يغطيها المقرر	م
1	6	3	<p style="text-align: center;"><b>Breathing system</b></p> <p><b>Breathing circuit components:</b></p> <ol style="list-style-type: none"> <li>1.A fresh gas entry.</li> <li>2.A reservoir bag.</li> <li>3.A carbon dioxide absorber.</li> <li>4.Corrugated tubes for connecting these components.</li> <li>5.Flow unidirectional valves may or may not be used.</li> </ol> <p><b>- Classification of breathing system:</b></p> <p><b>Insufflatin.</b></p> <p><b>Drow over system</b></p> <p><b>Mapleson.</b></p> <p><b>Circle system.</b></p> <p><b>- Mapleson system classification</b></p> <p><b>- Progress of breathing system</b></p> <p><b>- Components of circle system</b></p>	1
1	4	2	<p><b>-lung functions and capacities:</b></p> <p>TV</p> <p>ERV</p> <p>IRV</p> <p>RV</p> <p><b>-capacities:</b></p> <p>IC</p> <p>FRC</p> <p>VC</p> <p>TLC</p> <p><b>-Measurements of volume and capacities</b></p> <p><b>-Dead space and its measurement.</b></p> <p><b>- Fowlers Method</b></p>	2

1	3	1	Defibrillator: Definition Function Components Advantages indications Different types Complications	3
1	9	3	Vaporizer : Definitions Components Principle of mechanism of action Development Types and comparison between their action Indications Features of modern vaporizers Hazards of vaporizers.	4
1	6	2	Nerve stimulator: Definition components Principle of mode of action Types of needles Indications complications	5
1	2	1	Operating theatre safety: Ventilation in OT Electricity connections Vacuum system	6

### Course Title:-Practical

EXERCISE	CONTENTS	HOURS
1	<ul style="list-style-type: none"> <li>○ general display of medical devices which must be available in operating theatre</li> <li>○ defibrillator components and types</li> </ul>	2
2	<ul style="list-style-type: none"> <li>▪ How to differentiate between multiple types of breathing systems</li> <li>▪ Nerve stimulator components and needles</li> </ul>	1 1
3	<ul style="list-style-type: none"> <li>▪ Knowledge of multiple types of mapleson circuits</li> <li>▪ Proper use of each type of mapleson circuit</li> </ul>	1 1
4	<ul style="list-style-type: none"> <li>▪ Modality of calculation of lung volumes and capacities</li> <li>▪ Knowledge of fowlers method</li> </ul>	1 1
<b>TOTAL</b>		<b>8</b>