



# Unit Description Form

## Course Description Form

### Faculty of Engineering / Department of



#### Unit Information

#### Course Information

<b>Unit Title</b>	<b>Medical Equipment</b>		<b>Unit delivery</b>	
<b>Unit Type</b>	fundamental		<input checked="" type="checkbox"/> نظريه <input checked="" type="checkbox"/> حاضر <input checked="" type="checkbox"/> المختبر <input type="checkbox"/> تعليمي <input type="checkbox"/> عملي <input type="checkbox"/> Seminar	
<b>Unit Code</b>	WBM-31-06			
<b>ECTS Credits</b>	8			
<b>SWL (ساعة / SEM)</b>	45 hours			
<b>Unit level</b>	3	<b>Delivery Semester</b>		
<b>Department of Administration</b>	Biomedical	<b>College</b>	Engineering	
<b>Unit Commander</b>	Eng. Mustafa Habib Giyad	<b>E-mail Address</b>	mustafa.ha@uowa.edu.iq	
<b>Title of Unit Commander</b>	Assistant Lecturer	<b>Unit Commander Qualifications</b>	Master	
<b>Unit Teacher</b>		<b>E-mail Address</b>		
<b>Peer Reviewer Name</b>	name	<b>E-mail Address</b>	E-mail Address	
<b>Date of accreditation of the Scientific Committee</b>	26/9/2024	<b>Version number</b>	1.0	

#### Relationship with other units

#### Relationship with other subjects

<b>Prerequisites Unit</b>	No	<b>Semester</b>	
<b>Common Requirements Unit</b>	No	<b>Semester</b>	

<b>Unit objectives, learning outcomes and how-to contents</b> Course objectives, learning outcomes and instructional contents	
<b>Objectives of the Unit</b> Course Objectives	<ul style="list-style-type: none"> <li>• <b>Identify types of medical equipment:</b> Learn about a wide range of devices used in medicine, such as diagnostic and therapeutic devices.</li> <li>• <b>Understand how medical equipment works:</b> Study how medical devices such as manometers, X-rays, and monitoring devices work.</li> <li>• <b>Learn about safety standards:</b> Learn how to use medical equipment safely and in accordance with approved medical standards.</li> <li>• <b>Study of clinical applications of medical equipment:</b> Know how to apply medical equipment in the diagnosis and treatment of pathological conditions.               <ul style="list-style-type: none"> <li>• <b>Understand the role of devices in healthcare:</b> examine the impact of medical equipment in improving healthcare.</li> </ul> </li> </ul>
<b>Unit Learning Outcomes</b> Learning outcomes of the course	<ul style="list-style-type: none"> <li>• <b>Learn about the different types of medical equipment:</b> Know how diverse medical devices work and are used.</li> <li>• <b>Practical applications of medical devices:</b> Ability to operate and maintain medical equipment efficiently.</li> <li>• <b>Understanding parts and components:</b> Ability to identify components of medical equipment and understand how they work.</li> <li>• <b>Handling medical equipment safely:</b> Adhere to safety guidelines while using medical devices.               <ul style="list-style-type: none"> <li>• <b>Analysis of data generated by medical devices:</b> Learn how to interpret data provided by medical devices such as monitoring devices or diagnostic devices.</li> </ul> </li> </ul>
<b>Indicative Contents</b> Indicative Contents	<ul style="list-style-type: none"> <li>• <b>Introduction to medical equipment:</b> definition of medical equipment, classifications, and types.</li> <li>• <b>Types of medical equipment:</b> <ul style="list-style-type: none"> <li>• <b>Diagnostic equipment:</b> such as X-ray machines, magnetic resonance imaging machine (MRI), electrocardiogram (ECG) machines.</li> <li>• <b>Therapeutic equipment:</b> such as ventilators, radiotherapy devices.</li> <li>• <b>Surgical equipment:</b> such as electric surgical instruments.</li> <li>• <b>Life aids:</b> such as monitors, insulin pumps.</li> </ul> </li> <li>• <b>Medical Standards and Specifications:</b> Study of global health standards related to medical equipment, such as FDA or CE standards.</li> <li>• <b>Safety and maintenance:</b> Learn how to properly maintain medical equipment and ensure its safety.               <ul style="list-style-type: none"> <li>• <b>Clinical applications:</b> How these devices are used in hospitals or clinics to diagnose and treat patients.</li> </ul> </li> </ul>

<b>Learning and Teaching Strategies</b> Learning and Teaching Strategies	
<b>Strategies</b>	<ul style="list-style-type: none"> <li>• <b>Hands-on learning:</b> Conducting hands-on experiments using medical devices in a laboratory or simulated environment.</li> <li>• <b>Case Study:</b> Discuss real medical cases in which medical devices are used.</li> <li>• <b>Equipment Operation Training:</b> Provide practical training to students on how to operate and maintain medical equipment.</li> <li>• <b>Interactive activities:</b> Use simulators and software to teach students how to handle medical devices.</li> </ul>

- **Field trips:** Visit hospitals or medical laboratories to apply concepts in a real-world environment.

### Student Workload (SWL)

The student's academic load is calculated for 15 weeks

<b>SWL منظم (h / sem)</b> Regular academic load of the student during the semester	30	<b>SWL regulator(h/s)</b> Regular student load per week	5
<b>SWL غير منظم (h / sem)</b> Irregular academic load of the student during the semester	15	<b>Unregulated SWL (h/s)</b> Irregular student academic load per week	5
<b>إجمالي SWL (h / sem)</b> The student's total academic load during the semester			45

### Unit Evaluation Course Evaluation

As		Time/Number	Weight (tags)	Week due	Related learning outcomes
Formative Assessment	Contests	2	10% (10)	5, 10	LO #1 , 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO #3 , 4, 6 and 7
	Projects <b>/Laboratory.</b>	1	10% (10)	continuous	every
	report	1	10% (10)	13	LO #5 , 8 and 10
Final Assessment	Midterm Exam	2 hr	10% (10)	7	LO #1-7
	Final Exam	2 hours	50% (50)	16	every
<b>Overall Rating</b>			100% (100 degree)		

### Delivery Plan (Weekly Curriculum)

Theoretical Weekly Curriculum

week	Covered Material
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	

Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources		
Learning and Teaching Resources		
	text	Available in the library?
Required texts	Clinical Biochemistry, (8 editions), by Leipencotts	Yes
Recommended texts		Yes
Websites		

Grading chart				
Grading chart				
group	degree	Appreciation	Tags (%)	definition
An-Najah Group (50 - 100)	A - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	Very good	80 - 89	Above average with some errors
	C - Good	Good	70 - 79	Proper work with noticeable errors
	D - Satisfactory	medium	60 - 69	Fair but with significant shortcomings
	E - sufficient	Acceptable	50 - 59	The work meets the minimum standards
Group failure (0 - 49)	FX - Failed	Deposit (in processing)	(45-49)	More work required but credit granted
	F - Failed	Failure	(0-44)	Large amount of work required

**Note:** Signs that are more than 0.5 decimal places greater than or below the full mark will be rounded higher or lower (for example, a score of 54.5 will be rounded to 55, while a mark of 54.4 will be rounded to 54. The university has a policy of not tolerating "imminent traffic failure", so the only modification to the marks granted by the original mark(s) will be the automatic rounding described above.