Unit Description Form

Course Description Form

Faculty of Engineering / Department of

Unit Information

Course Information

Unit Title	**Pav Optical**	**Unit delivery**	
Unit Type	**Secondary**	☒ نظريه ☒ حاضر ☒ المختبر ☐ تعليمي ☐ عملي ☐ Seminar	
Unit Code	WBM-31-06		
ECTS Credits	**8**		
SWL (ساعة / SEM)	**45 hours**		

Unit level	2	**Delivery Semester**	2
Administrative Management	Biomedical	**College**	Engineering
Unit Commander	Eng. Mustafa Habib Giyad	**E-mail Address**	mustafa.ha@uowa.edu.iq
Title of Unit Commander	Assistant Lecturer	**Unit Commander Qualifications**	Master
Unit Teacher		**E-mail Address**	
Peer Reviewer Name	name	**E-mail Address**	E-mail Address
Date of accreditation of the Scientific Committee	26/9/2024	**Version number**	1.0

Relationship with other units

Relationship with other subjects

Prerequisites Unit	No	**Semester**	
Common Requirements Unit	No	**Semester**	

Unit objectives, learning outcomes and how-to contents Course objectives, learning outcomes and instructional contents	
Objectives of the Unit Course Objectives	• **Identify types of medical equipment**: Learn about a wide range of devices used in medicine, such as diagnostic and therapeutic devices. • **Understand how medical equipment works**: Study how medical devices such as manometers, X-rays, and monitoring devices work. • **Learn about safety standards**: Learn how to use medical equipment safely and in accordance with approved medical standards. • **Study of clinical applications of medical equipment**: Know how to apply medical equipment in the diagnosis and treatment of pathological conditions. • **Understand the role of devices in healthcare**: examine the impact of medical equipment in improving healthcare.
Unit Learning Outcomes Learning outcomes of the course	• **Learn about the different types of medical equipment**: Know how diverse medical devices work and are used. • **Practical applications of medical devices**: Ability to operate and maintain medical equipment efficiently. • **Understanding parts and components**: Ability to identify components of medical equipment and understand how they work. • **Handling medical equipment safely**: Adhere to safety guidelines while using medical devices. • **Analysis of data generated by medical devices**: Learn how to interpret data provided by medical devices such as monitoring devices or diagnostic devices.
Indicative Contents Indicative Contents	• **Introduction to medical equipment**: definition of medical equipment, classifications, and types. • **Types of medical equipment**: • **Diagnostic equipment**: such as X-ray machines, magnetic resonance imaging machine (MRI), electrocardiogram (ECG) machines. • **Therapeutic equipment**: such as ventilators, radiotherapy devices. • **Surgical equipment**: such as electric surgical instruments. • **Life aids**: such as monitors, insulin pumps. • **Medical Standards and Specifications**: Study of global health standards related to medical equipment, such as FDA or CE standards. • **Safety and maintenance**: Learn how to properly maintain medical equipment and ensure its safety. • **Clinical applications**: How these devices are used in hospitals or clinics to diagnose and treat patients.

Learning and Teaching Strategies Learning and Teaching Strategies	
Strategies	• **Hands-on learning**: Conducting hands-on experiments using medical devices in a laboratory or simulated environment. • **Case Study**: Discuss real medical cases in which medical devices are used. • **Equipment Operation Training**: Provide practical training to students on how to operate and maintain medical equipment. • **Interactive activities**: Use simulators and software to teach students how to handle medical devices.

	• **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

SWL منظم (h / sem) Regular academic load of the student during the semester	30	**SWL regulator(h/s)** Regular student load per week	5
SWL غير منظم (h / sem) Irregular academic load of the student during the semester	15	**Unregulated SWL (h/s)** Irregular student academic load per week	5
SWL إجمالي (h / sem) 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 /Laboratory.	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
	Overall Rating		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.