Ministry of Higher Education and Scientific Research - Iraq
University of WARITH ALANBIYAA
College of Sciences
Department of Medical Physics

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	PHONETICS SCIENCE			**Module Delivery**	
Module Type	CORE			**Theory ✓**	
Module Code	MPH2205				
ECTS Credits	5 ECTS				
SWL (hr/sem)	125				
Module Level	UG II		**Semester of Delivery**	4th Semester	
Administering Department	MPH		**College**	College of Sciences	
Module Leader	Ismail Mohamed Eldesoky		**e-mail**	ismail.m@uowa.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer ame			**e-mail**		
Review Committee Approval			**Version Number**	1.0	

Relation With Other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	**Semester**	None
Co-requisites module	None	**Semester**	None

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	1. Definition of Sound waves and General properties, The Intensity of a Sound Wave, Propagation of sound wave. 2. Propagation of sound wave, frequency of a sound wave, Reflection of Sound, Laws of Reflection of Sound. 3. Applications of Reflection of Sound, Echo, Hearing Aid, Megaphone, Sonic Boom. 4. Transmission of Sound, Diffraction of Sound Waves, Refraction of Sound. 5. Sound mechanism, Three Voice Subsystems, Key Function of the Voice Box, Key Function of the Voice Box. 6. Scattering phenomena and scattering coefficient sound and spectrograph. 7. The vocal system, Lungs, Trachea, Larynx, Pharynx. 8. Sound mechanism: Resonance, Articulation, Three Voice Subsystems, Air pressure system, Vibratory system, Resonating system, Key Function of the Voice Box, Key Components of the Voice Box 9. Laryngeal diseases and treatment 10. Structure and function of the human ear and the mechanism of hearing 11. Applications of audible waves in medicine. 12. Acoustic Traps and Doppler Effect and Shock Waves.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Know about the Sound waves and General properties. 2. Know about the Propagation, frequency, and Reflection of Sound. 3. Know the Applications of Reflection of Sound, Echo, Hearing Aid, Megaphone, and sonic boom. 4. Know about the Sound mechanism. 5. Know about the Scattering and scattering coefficient sound and spectrograph. 6. Study the vocal system, Lungs, Trachea, Larynx, and Pharynx. 7. Know about the Structure & Function of the Human Ear. 8. Applications of audible sound in medicine. 9. Study the Physiological effects of ultrasound in treatment. 10. The student is familiar with sound physics and medical audio applications.
Indicative Contents المحتويات الإرشادية	Theory Lectures Learning concepts of each theoretical lecture or groups of lectures. [SSWL= 28hrs] Total hrs = ΣSSWL + (Mid Exam hrs+ Final Exam hrs) Total hrs = 28 hrs + (1 hrs+ 3 hrs) = 32 hrs

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**1-** Lecture **2-** Workshops **3-** Flipped classroom **4-** Problem-based learning (PBL) **5-** Peer teaching and collaborative learning **6-** Reflective practice

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	32	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2.13
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	93	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.20
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10%	4,12	3,9
	Reports	2	10%	6,15	4,8
	Project	1	10%	10	5
	Online Assig.	2	10%	8,14	6,8
Summative assessment	**Midterm Exam**	1	10% (10)	7	1,2,3,7
	Final Exam	1	50% (50)	16	10
Total assessment			100%		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction of Sound waves.
Week 2	Propagation of sound wave.
Week 3	Applications of Reflection of Sound.
Week 4	Properties of sound waves: Transmission, Diffraction, and Refraction.
Week 5	Sound mechanism.
Week 6	Scattering of sound.
Week 7	Mid. Exam
Week 8	The vocal system.
Week 9	Sound mechanism: Resonance, and Articulation.
Week 10	Laryngeal diseases and treatment.
Week 11	The Structure & Function of the Human Ear.
Week 12	Applications of audible waves in medicine (Stethoscope).
Week 13	Applications of Sound in Medicine.
Week 14	The Doppler Effect and Shock Waves.
Week 15	The nature of ultrasound waves.

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	1- Physics in Biology and Medicine, 3rd Edition, 2003-2007, Paul Davidovits. Speech and Voice Science,4th EDITION, 2023 Alison Behrman.	No
Recommended Texts	Physics, 8th EDITION ,2008, John D. Cutnell, Kenneth W. johnson.	No
Websites	1- https://www.google.iq/books/edition/Laryngeal_Function_and_Voice_Disorders/dXyCDwAAQBAJ?hl=en&gbpv=1&dq=laryngeal+diseases+and+their+treatment+pdf+free+download&printsec= frontcover 2- https://www.physicsclassroom.com/class/sound	

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

NB Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.