1	Course title	Noise and the ear
2	Course number	1804435
3	Credit hours (theory, practical)	3 hours
	Contact hours (theory, practical)	
4	Prerequisites/co requisites	1804456
5	Program title	BSc. In Hearing and speech sciences
6	Program code	1804
7	Awarding institution	University of Jordan
8	School	Rehabilitation Sciences
9	Department	Hearing and speech
10	Level of course	Undergraduate, Fourth year
11	Year of study and semester (s)	2018/2019 second semester
12	Final Qualification	Bachelor degree in Hearing and Speech Sciences
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English/ Arabic
15	Date of production/revision	1/02/2019

16. Course Coordinator:

Name	
Rank	
Office number	
Office hours	
Phone number	
Email addresses	

17. Other instructors:

Name	
Rank	
Office number	
Office hours	
Phone number	
Email addresses	

18. Course Description:

Consideration of the impact of environmental noise on society. Emphasis on measurement, damage risk criteria and the legal aspects of noise control and hearing conservation approaches.

19. Course aims and outcomes:

A- Aims:
This course aims for the students to able to understand the nature of various types of noise and its effect on the hearing mechanism, and how to complete noise measurements in work environments and general environments.

B- Intended Learning Outcomes (ILOs):
Upon completing the program, students are expected to**:**

1. Program ILO: Demonstrate deep knowledge of the basic human communication processes, as well as the nature of speech, language, and hearing.	
Specific Course ILO(s):	1.1 to demonstrate knowledge of basic anatomy and physiology of the auditory system. 1.2 to demonstrate knowledge of environmental acoustics and noise acoustics. 1.3 to be able to classify and assess noise induced hearing loss. 1.4 To demonstrate knowledge about ear problems that result from noise exposure. 1.5 to be able to classify and assess acoustic trauma. 1.6 to be able to understand different measurement devices, approaches and units 1.7 Understand properties of the sound
2. Program ILO: Identify and apply the basic principles and methods of prevention, assessment and intervention for individuals with communication and hearing disorders.	
Specific Course ILO(s):	2.1 Have a good understanding of the role audiometry in the industry. 2.2 Be able to make decisions on evaluation and intervention methods based for individuals that have been exposed to noise. 2.3 Understand appropriate techniques for assessing environmental noise and to be able to select measurement locations 2.4 understand different types of machine noise their sources and impact. 2.5 understand different types of recreational noise and their impact
3. Program ILO: Apply the basic clinical skills in working with individuals with communication and hearing disorders.	
Specific Course ILO(s):	3.1 To be able to work effectively according to the code of ethics and recommended procedures for individuals exposed to noise 3.2 to be able to screen for hearing loss in noisy work settings. 3.3 to be able to understand the significance of weekly and daily noise exposures and the risks of hearing damage
4. Program ILO: Formulate specific and appropriate intervention plans	
Specific Course ILO(s):	4.1 to Be able to set acceptable limits for noise exposure in work environments

	and for recreational noise.
1. 5. Program ILO: Conduct appropriate diagnostic monitoring procedures, therapy or other actions safely and skillfully.	
Specific Course ILO(s):	5.1 Work in partnership with colleagues, other professionals, patients and their carers to maximise patient care
6. Program ILO: Write professional reports for patient with communication and hearing disorders.	
Specific Course ILO(s):	
7. Program ILO: Apply principles of evidence-based practice in the assessment and intervention processes	
Specific Course ILO(s):	7.1 Think critically and question received information using clinical reasoning skills 7.2 Interpretation of noise measurements eg. source identification, noise contouring, hearing protection zones
2. 8. Program ILO: Identify ongoing effectiveness of planned activity and modify it accordingly.	
Specific Course ILO(s):	8.1 report protocols for noise control 8.2 set acceptable measurement periods
3. 9. Program ILO: Analyze the criteria of each assessment and intervention approach and accordingly choose the best technique for each individual case.	
Specific Course ILO(s):	
10. Program ILO: To employ time management skills in dealing with caseloads and in delivering intervention for individual cases.	
Specific Course ILO(s):	10.1 Understand how to interpret environmental noise measurements, including the impacts of intermittent noise
4. 11. Program ILO: Demonstrate commitment to lifelong learning, teamwork, scientific research, analysis, interpretation, has the ability to think critically and solve problems, and uses technology to monitor, manage, analyze, and transfer information to generate knowledge and employ it for future uses.	
Specific Course ILO(s):	11.1 Work in partnership with colleagues, other professionals, patients and their carers to maximise patient care.
12. Program ILO: Demonstrate the ability to take responsibilities and exercises their rights and duties within the value system of society and their public morals.	
Specific Course ILO(s):	

20. Topic Outline and Schedule: (use numbers for ILOs and references).

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	References
Properties of the sound (Velocity of sound, Relationship between frequency, wavelength and velocity, simple harmonic motion)	**1st week**		**1.2,1.7**	**Evaluations.**	**1,2,3,**
Definitions and measurement units **(sound pressure and sound pressure level, intensity and intensity levels , reference values …)**	**2nd week** **And 3rd week**		**1.6**	**examination and assignments**	**1,2,3,**
Ear anatomy and physiology and its response to sounds/noise	**4th week**		**1.1** **1.2**	**examination and assignments**	**1,2,3,**
Noise induced hearing loss, tinnitus and damage to hair cells	**5th week**		**1.3** **1.4**	**examination and assignments**	**1,2,3,**

Acoustic trauma/ permanent and temporary threshold shift	**6th week**		**1.5**	**examination and assignments**	**1,2,3**
Midterm exam	**7th week**				
Machinery noise	**8th week**		**2.4**	**examination and assignments**	**1,2,3**
Noise assessment and measurement	**9th week**		**2.1** **2.2** **2.3**	**examination and assignments**	**1,2,3**
Noise control and noise exposure limits	**10th week**		**4.1** **10.1** **8.1** **8.2**		**1,2,3**

Recreational noise	**11th week**		**2.5,4.1**	**examination and assignments**	**1,2,3**
Hearing protection	**12th week**		**4.1** **7.1** **7.2** **8.1** **8.2**	**examination and assignments**	**1,2,3**

21. Teaching Methods and Assignments:
Please pick the approaches that will be used to achieve course and clinical objectives related to the ILOs:

Select if applied	Instructional Methods	Learning Activities (Examples)
	Direct Instruction	) Structured orientation lectures) Skills and procedures demonstrations
	Interactive Instruction	) Clinical conferences and case presentations) Seminars and discussions
	Experiential Learning	) Experiential learning in semi-clinical setting) Simulation) Hands-on learning
	Independent Study	) Self-directed literature review and synthesis to address problems in a specific case study) Reflective Journaling
	Blended Learning	) Combined face-to-face classroom practices with computer-mediated activities regarding content and delivery of course topics
X	Evidence Based Practice	) Integrate research methods & results in the learning process) Reflective assignments & projects
	Other (please specify)	

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Exams		
Exam	Date	Grade
Midterm	TBA	30%
Final	TBA	40%
Report and portfolio	TBA	30% assignment

Assignments	
Assignment and reports: 30%	
Assignment description:	**TBA**
Assignment objective:	-
Assignment due date:	Dates will be announced throughout the semester.
Rubric:	0: assignment is blank or incomplete 1-3: response includes, but does not include any or includes only very minimal reasoning or rational (regardless of correctness) 4-5: response includes an answer and reasoning or rational (mostly correct)

23. Course Policies:

A- Attendance policies:

- Attendance will be taken periodically throughout the semester.
- Students are expected to attend and actively participate in all classes.
- Students are expected to be on time.
- When the student is unable to attend class, it is a courtesy to notify the instructor in advance using either e-mail or phone.
- Repeated tardiness or leaving early will not be accepted.
- Students who miss class (or any portion of class) are responsible for the content. Any student who misses a class has the responsibility for obtaining copies of notes, handouts, assignments, etc. from class members who were present. If additional assistance is still necessary, an appointment should be scheduled with the instructor. Class time is not to be used to go over material with students who missed class(es).
- An absence of more than 15% of all the number of classes, which is equivalent of (7) classes, requires that the student provides an official excuse to the instructor and the dean.
- If the excuse was accepted the student is required to withdraw from the module.
- If the excuse was rejected the student will fail the module and mark of zero will be assigned as suggested by the laws and regulations of the University of Jordan. Please refer to pages 133, 134 of the student handbook.

B- Absences from exams and handing in assignments on time:

- The instructor will not do any make-up exams.
- Exceptions for make-up exams and late submission of class assignments will be made on a case-by-case basis for true personal emergencies that are described as accepted by the regulations of UJ (e.g., documented medical, personal, or family emergency).

- Make-up exams will be arranged if justifications for missing the exam satisfy the above. It is the student's responsibility to contact the instructor within 24 hours of the original exam to schedule a make-up session. A make-up exam should be taken within a week from the original exam date, unless the student can provide documentation that makes meeting that deadline impossible; otherwise, the recorded score for that exam for the student will be a zero.
- Late assignments will not be accepted and submission of assignments (due to unjustified absence from class) by other students will not be accepted regardless of how much work the student put into its preparation.

C- Health and safety procedures:

- Students will not be in direct contact with patients during this course.
- Students are not expected to use any heavy tools or equipment that might impose health and safety issues during this course.
- Students should work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner in accordance with health and safety legislation.
- Students should understand the importance of and be able to maintain confidentiality.
- Students should understand the importance of and be able to obtain informed consent.
- Students should know the limits of their practice and when to seek advice or refer to another professional

D- Honesty policy regarding cheating, plagiarism, misbehavior:

- Students are expected to observe all University guidelines pertaining to academic misconduct.
- Any work submitted by a student for academic credit must be the student's own work. Submission of work taken directly from another source (e.g., book, journal, internet, clinic forms, or another student work) will be considered plagiarism and the student/group will get a zero grade for that work if part of an assignment. In addition, if copying occurred, both the student who copied the work and the student who gave material to be copied (if applicable) will receive a zero for the assignment.
- Students are expected to do work required for assignments on their own. Asking other instructors at the JU clinic or the staff, or other students to assist in or do any part of the assignment for them will negatively affect their grade on that assignment. The course instructor is the person the student needs to talk to if s/he has any difficulties pertaining to an assignment or project and is strongly encouraged to schedule an appointment with the instructor if such difficulties arise during the semester.
- Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited.
- Any forms of academic misconduct will be handled according to the University of Jordan guidelines.

E- Grading policy:

Grading for this course will be determined based upon the accumulation of points for variety of assignments and exams. All work will be evaluated on completeness, organization, clarity of information, and the integration and application of the material.

F-Available university services that support achievement in the course:

The University of Jordan provides many services to support social, health, and mental well-being of students in general and students with disabilities in specific. Students are advised to visit the Faculty of Students Affairs to learn more about those services. If you are a student with a disability for which you may request accommodations, please notify the staff of Services for Student with Disabilities (Faculty of Students Affairs) as soon as possible. Please also contact the instructor as soon as possible (email is acceptable) so the appropriate accommodations for this course can be made.

24. Required equipment:

Pure tone Audiometry
Tympanometry
Otoacoustic emission device

Evoked potentials Hand-held otoscope PCs with uploaded virtual audiometry programs Balance testing equipment Hearing aid fitting equipment

25. References:

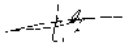
A. Required book (s), assigned reading and audio-visuals:
   1. Martin, Clarck (2003). Introduction to Audiology 8th ed. Pearso education, Inc
   2. Katz, jack (2002). Hand book of clinical audiology.5th ed. Lippincott Williams and Wilkins, Philadelphia.
   3. Noise-Induced Hearing Loss: Scientific Advances
   4.

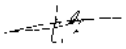
B. Recommended books, materials, and media:

26. Additional information:

Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming, then the issue should be brought to the attention of the module coordination (for multiple sections) who will take the concerns to the module representative meeting. Thereafter, problems are dealt with by the Department Chair and if still unresolved the Dean and the ultimately the Vice President. For final complaints, there will be a committee to review grading the final exam.

Name of Course Coordinator: Marina Mahafza Signature: marina - Date: 1/02/2019

Head of curriculum committee/Department: Dr. Yaser Natour Signature: 

Head of Department: Dr. Yaser Natour Signature: 

Head of curriculum committee/Faculty: Dr. Ziad Hawamdeh Signature: Z.H

Dean: Dr. Ziad Hawamdeh Signature: Z.H

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File