



Jordan University of Science and Technology  
Faculty of Applied Medical Sciences  
Department of Audiology & Speech Pathology  
2013-2014  
Course Syllabus

| <b>Course Information</b>   |  |
|---|--|
| <b>Course Title</b>   | Acoustics  |
| <b>Course Code</b>  | AS 226   |
| <b>Credit Hours</b>   | 2  |
| <b>Instructor</b>   | Dr. Mohammed Safa Nabulsi  |
| <b>E-mail</b>   | <a href="mailto:mmnabulsi@just.edu.jo">mmnabulsi@just.edu.jo</a> |
| <b>Course Description</b>   |  |
| <p>The course includes understanding of the principles of acoustics. It includes the understanding of the different physical aspects which are involved in audiology. Sound and its propagation, frequency and intensity will be discussed. Moreover, physical aspects affecting sound propagation such as resonance, reflection, diffraction, reverberation and interference and their effects will be discussed. Furthermore, special attention will be paid to waveforms, their spectrum and analysis. Sound and threshold measurements as well as sound transmission will be discussed.</p> |  |

| <b>Textbook</b>         |                                 |
|-------------------------|---------------------------------|
| <b>Title</b>            | Handbook of clinical audiology, |
| <b>Author(s)</b>        | Katz J.                         |
| <b>Publisher</b>        | Williams & Wilkins Baltimore.   |
| <b>Year</b>             | 1994                            |
| <b>Edition</b>          | Fourth edition.                 |
| <b>Book Website</b>     |                                 |
| <b>Other references</b> |                                 |

| Assessment                |     |
|---------------------------|-----|
| <b>First Exam Theory</b>  | 30  |
| <b>Second Exam Theory</b> | 30  |
| <b>Final Exam Theory</b>  | 40  |
|                           | 100 |

| <b>Course Objectives</b>  | <b>Percentage</b> |
|---|-------------------|
| 1. Understanding the special aspects of acoustics   | 25                |
| 2. Understanding the different physical aspects.  | 20                |
| 3. Understanding of the value and the whole different aspects affecting sound and its propagation                                       | 30                |
| 4. The ability to take into consideration the different aspects affecting sound while performing audiological tests and rehabilitation. | 25                |

| <b>Teaching &amp; Learning Methods</b>                                       |
|--|
| <ul style="list-style-type: none"> <li>• Power point presentation</li> </ul> |

| <b>Title of the Lecture</b>      |
|----------------------------------|
| Introduction / Sound/ Frequency. |
| Amplitude/Intensity/ Decibels.   |
| Sound measurement/ Resonance.    |
| Waveform                         |
| Spectrum &analysis               |
| Sound transmission               |
| Reflection/ Diffraction          |
| Sound fields                     |
| Reverberation                    |
| Interference                     |
| Binaural listening               |