

Syllabus of Record

Purpose

The syllabus of record (SOR) serves five audiences:

1. Faculty can use the SOR as a blueprint for designing course syllabi. Faculty are free to add to the content in the SOR, but the required activities, objectives, and methods of evaluation in the SOR must be maintained.
2. Students can use the SOR to determine, before they register, the skills they can expect to engage in and what they can expect to have learned upon successful completion of a course.
3. The SOR provides a standard format that other schools can use to determine transfer credit.
4. Faculty governance (e.g., CCC, UCC) use the SOR when evaluating course-change and new course proposals.
5. Accreditation bodies may use the syllabus of record to view the content taught in every section of a course.

The syllabus of record (SOR) is a blueprint for building a course. It provides details on the minimum structure and content for the course so that units can ensure knowledge is structured throughout the curriculum. It is not necessarily meant to articulate every aspect of each week of a course. Therefore, when constructing an SOR, careful attention must be paid to what it contains. If a unit wishes to propose a course in which content is quite rigid and fixed, then the various sections of the SOR would reflect that. On the other hand if a unit wishes to propose a course with content to be selected from a range of specified possibilities and/or a course with little fixed content with the bulk of the content being determined by the specific instructor, then the SOR would indicate that.

The SOR [guidelines](#) can really help with creating a successful SOR.

Course Data

Course Code

HRG 504

Title

Instrumentation and Hearing Science

Credits

3

Prerequisites

Admission to the audiology program

Description

A study of topics and procedures of instrumentation and hearing science that are fundamental to clinical practice including electronics, filters, acoustical impedance, analog and digital signals, and acoustics.

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Objectives

After successful completion of the course the students will be able to

1) **Application/Employ:**

Employ the various ways in which an acoustic signal can be generated, modified and measured

2) Analysis/Contrast:

Contrast the advantages, disadvantages, and uses of analog and digital signals

3) Comprehension/Explain:

Explain basic concepts of electricity

4) Application/Demonstrate:

Demonstrate the proper use of electronic components related to audiology

5) Application/Compute:

Compute acoustical and electrical impedance, resonance, and filtering

6) Application/Demonstrate:

Demonstrate calibration of audio logic instrumentation

Topics

| | |
|---------|--|
| Week 1 | Overview of Computers and Digital Sampling |
| Week 2 | Nature of Sound Waves |
| Week 3 | Resonance/Filters |
| Week 4 | Speech Acoustics |
| Week 5 | Audiometer |
| Week 6 | Fundamentals of the Decibel |
| Week 7 | Filters/Acoustic Impedance |
| Week 8 | Gating Functions/Signal Processing |
| Week 9 | Electrical System: Comparison to Sound System |
| Week 10 | Amplification, Attenuation, Filtering and Mixing |
| Week 11 | Time versus Frequency Domain |
| Week 12 | Distortions |
| Week 13 | Transducers |
| Week 14 | Practical applications of concepts |

Methods of Evaluation

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|----------------------------|---------------|
| Midterm Examination | 25-35% |
| Final Examination | 25-35% |
| Practicum Exercises | 30-40% |
| Presentation | 10-20% |

Sample Source(s) of Information

Speaks, C.E. (1999). *Introduction to sound: Acoustics for the hearing and speech sciences* (3rd edition). Singular Publishing, San Diego. *(Note: this is the most current edition of a seminal text)*

Rosen, S. and Howell, P. (2010). *Signals and systems for speech and hearing* (2nd Edition). Emerald Group Publishing Limited.

Decker, T.N. (2004). *Instrumentation: An introduction for students in the speech and hearing sciences* (3rd Edition). Psychology Press.

Current editions as of the date of the proposal are listed. The most current edition will be used for this course.