Catalog Description: This course covers the basic principles concerning sound production and reception are presented. The relationship of these principles to the practice of speech pathology and audiology is established.

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Drop Date: See academic calendar on university website

ASHA KASA content:
Speech-language [3/2003] Standard III-B: The applicant must demonstrate knowledge of basic human communication, including their biological, and acoustical bases.

ADOPTED TEXT:
Dr. Lee Terrio. Classroom Instructional Booklet [USM Bookstore]
Raphael, L. J.  Speech Science Primer, Lippincott, Williams and Wilkins

Course Objectives
This course is intended to develop a foundation of the student’s ability to understand basic scientific principles of speech and hearing so that they will be initiated to progress systematically through higher level courses in this field.

Student Learning Outcomes:
Upon successful completion of this course, the student will be able to
Understand, value and utilize the principles of acoustics.
Relate common technical terms associated with speech and hearing sciences.
Interpret various graphic representations of speech signals.
Compute basic calculations in this field such as decibels, hertz, etc.

Assessment & Course Requirements:
Unless otherwise necessary, all graded activities will be in class via canvas. You will need your own computer. If you do not live within driving distance of the campus, you may take the tests using an approved off campus proctor. Prior arrangements for proctored examinations must be made prior to the scheduled examination with the Office of Distance Learning. For additional information about proctored examinations, click on the off campus proctor link on the homepage. Remember, if you are
taking an offcampus exam, it is your responsibility to make arrangements with the Office of Distance Learning.

**Exam Policy / Formative Assessment:**
There will be four examinations, including the final exam, for both SHS-202 and SHS-202L. Every exam may cover any material covered earlier. Exams may consist of multiple choice, matching, diagramming, true-false, fill-in-the-blank, short answer, and/or essay questions.

All four exams in this course for both SHS-202 and SHS-202L will be conducted in the classroom. Each exam consists of two sets of questions, one set for SHS-202 and one set for SHS-202L. Separate grades are reported for SHS-202 and SHS-202L.

Each of the top three scores of the four exams will weigh 20% of the course grade, and the lowest score of the four exams will weigh 10% of the course grade. The final examination is required. Missing the final examination is an automatic failure.

**Summative Assessment**
Regular classroom/online activities and corresponding grades will be progressively spread over the semester and will weigh 30% of the course grade.

**Grading Scale:**
The number of points obtained out of the total possible points will determine final Class Grade. (If a student is absent for an exam or assignment, she/he will be losing all the points meant for that exam. The student’s final grade is based on the average of points obtained from all the exams and assignments.)
Grading Scale: 90-100% = A; 80-89% = B; 70-79% = C; 60 – 69% = D; < 59% = F.

**Remediation:**
Students who make a grade lower than “B” on any examination must contact the instructor to discuss study habits and the reasons for poor performance. Extra readings and additional homework assignments may be allocated (as necessary) to ensure the acquisition of the requisite knowledge and skills. Participation in the remedial work may not automatically result in a grade change.

**ADA STATEMENT:**
If a student has a disability that qualifies under the Americans with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.
Address: The University of Southern Mississippi, Office for Disability Accommodations, 118 College Drive # 8586, Hattiesburg, MS 39406-0001
Voice Telephone: 601.266.5024 or 228.214.3232    Fax: 601.266.6035
Individuals with hearing impairments can contact ODA using the Mississippi Relay Service at 1.800.582.2233 (TTY) or email ODA at oda@usm.edu.

**ACADEMIC HONESTY:**
Students at The University of Southern Mississippi are expected to practice academic honesty in all their work at the University. (https://www.usm.edu/institutional-policies/policy-acaf-pro-012). When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the dean
of students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension or expulsion. Academic dishonesty also includes any submission of false documents such as add/drop forms, substitutions, special requests, etc. Students on disciplinary suspension may not enroll in any courses offered by The University of Southern Mississippi. The University of Southern Mississippi (2017). Academic Honesty. https://www.usm.edu/student-handbook/academic-honesty

**PLAGIARISM POLICY:**

Plagiarism is scholarly theft, and it is defined as the unacknowledged use of secondary sources. More specifically, any written or oral presentation in which the writer or speaker does not distinguish clearly between original and borrowed material constitutes plagiarism. Because students, as scholars, must make frequent use of the concepts and facts developed by other scholars, plagiarism is not the mere use of another’s facts and ideas. However, it is plagiarism when students present the work of other scholars as if it were their own work.

Plagiarism is committed in a number of ways:

a. reproducing another author's writing as if it were one's own;
b. paraphrasing another author's work without citing the original;
c. borrowing from another author's ideas, even though those ideas are reworded, without giving credit;
d. copying another author's organization without giving credit.

Plagiarism is a serious offense. An act of plagiarism may lead to a failing grade on the paper and in the course, as well as sanctions that may be imposed by the student judicial system.


**ACADEMIC INTEGRITY:**

All students at the University of Southern Mississippi are expected to demonstrate the highest levels of academic integrity in all that they do. Forms of academic dishonesty include (but are not limited to):

a. Cheating (including copying from others' work);
b. Plagiarism (representing another person's words or ideas as your own; failure to properly cite the source of your information, argument, or concepts);
c. Falsification of documents;
d. Disclosure of test or other assignment content to another student;
e. Submission of the same paper or other assignment to more than one class without the explicit approval of all faculty members' involved;
f. Unauthorized academic collaboration with others;
g. Conspiracy to engage in academic misconduct.

Engaging in any of these behaviors or supporting others who do so will result in academic penalties and/or other sanctions. If a faculty member determines that a student has violated our Academic Integrity Policy, sanctions ranging from resubmission of work to course failure may occur, including the possibility of receiving a grade of “XF” for the course, which will be on the student’s transcript with the notation “Failure due to academic misconduct.” For more details, please see the University’s Academic Integrity Policy. Note that repeated acts of academic misconduct will lead to expulsion from the University.

**MENTAL WELL-BEING:**

Southern Miss recognizes that students sometimes experience challenges that make learning difficult. If you find that life stressors such as anxiety, depression, relationship problems, difficulty concentrating, alcohol/drug problems or other stressful experiences are interfering with your academic or personal success, consider contacting Student Counseling Services on campus at 601.266.4829.
More information is also available at www.usm.edu/student-counseling-services. All students are eligible for free, confidential individual or group counseling services. In the event of an emergency, please call 911 or contact the counselor on call at 601.606.HELP (4357).

**COURSE WORKLOAD:**
Students are expected to invest considerable time outside of class in learning the material for this course. The expectation of the University of Southern Mississippi is that each week students should spend approximately 2-3 hours outside of class for every hour in class working on reading, assignments, studying, and other work for the course. We realize that most students work and have family or other obligations. Time management is thus critical for student success. All students should assess their personal circumstances and talk with their advisors about the appropriate number of credit hours to take each term, keeping in mind that 30 credit hours each year are needed to graduate in four years. Resources for academic support can be found at www.usm.edu/success.

**TENTATIVE SCHEDULE:**
The following topics will be sequentially covered. Students are responsible for reading the assigned modules in synchrony with the lectures. Some of the details may be adjusted according to appropriate demands of the class.

- Module 1: Basics
- Module 2: Dimensions of sound etc.
- Module 3: Oscillogram, Spectrum, Spectrogram etc.
- Module 4: Phase, Summation, Beat etc.
- Participation completion – Part A.
- **Exam#1: Wednesday, 9/26/2018**
  - Module 5: Amplitude, Intensity, Decibel etc.
  - Module 6: Wavelength, Inverse Square Law etc.
  - Module 7: Periodic examples: Sine, Square, Triangular, Sawtooth waves etc.
  - Participation completion – Part B.
- **Exam#2: Wednesday, 10/24/2018**
  - Module 8: Aperiodic examples: White, Pink, Brown, Narrow Band noises etc.
  - Module 9: Vocal Spectra, Intonation etc.
  - Participation completion – Part C.
- **Exam#3: Wednesday, 11/14/2018**
  - Module 10: Resonance and formants etc.
  - Module 11: Spectrograms of vowels etc.
  - Module 12: Spectrograms of consonants etc.
  - Module 13: Rates, Segmentation etc.
  - Participation completion – Part D.
- **Exam#4 (FINAL): Wednesday, 12/5/2018, 8:00 AM – 10:00 AM**