University of Southern Mississippi  
College of Nursing and Health Professions  
School of Speech and Hearing Sciences

SYLLABUS: SHS 708: Evaluation of Vestibular Function I  
Spring 2019

Instructor: C. G. Marx, AuD, CCC-A  
Office: Room SRS 123  
Fax: 601-266-5224  
Email: charles.marx@usm.edu  
Phone: 266-6227  
Location: SRS 206

Office Hours: Will be posted on my office door, and other times by appointment

Drop Date: Additional handout will specify dates for specific semesters

Credit Hours: 3

Course Description  
This course provides knowledge and skills related to balance assessment.

Course Communication  
Students may contact the instructor outside the classroom by email (preferred) charles.marx@usm.edu or telephone (266-6227).

I. Instructional objectives  
Students in this class will be able to:
• identify and describe the structures of the ear associated with balance  
• describe the interactions between vestibular, visual and proprioceptive systems in maintaining balance  
• identify the pathological causes of balance dysfunction  
• describe the treatments for balance dysfunction  
• utilize video nystagmography to diagnose balance disorders  
• utilize electronystagmography to diagnose balance disorders

II. Instructional outcomes assessment  
Meeting the instructional objectives will be determined on the basis of
• written examinations (3)  
• laboratory and internet assignments resulting in a lab project notebook  
• article reviews
• demonstration of VNG/ENG testing protocols and procedures


Other readings (written and/or internet) to be assigned as necessary.

CLASS MEETINGS:
Class meetings on Tuesday will be conventional classroom lectures and class participation discussions of assignments. Class meetings on Thursday will consist of lab exercises held in room 236. These lab exercises will be coordinated and supervised by the instructor and will result in the creation of a lab project notebook depicting each completed section of the VNG/ENG test. Students will be graded on class participation as well as demonstration of skills and aptitudes during lab meetings.

IV. Grading:
Grading will be based on exam scores, practical exams, lab assignments/project notebook, article reviews and attendance. Exams may consist of multiple choice questions, true-false questions, fill in the answer, identifying graphical representations, and other venues that appropriately assess knowledge and/or skills. A make up exam will be given only for an absence excused by the instructor which will be rare and critically defined. If you miss an exam and take a make-up exam, the content of the make-up exam will not necessarily be the same as the exam that you missed. Lab assignments will be designed to give you practice in performing the procedures covered in class; failure to successfully complete lab assignments will result in a 10 point deduction from the final grade. The lab project notebook will consist of a checklist of areas of demonstrated proficiency with VNG/ENG testing and completed recordings from each section of the test (see attached document). The lab project/notebook will be graded on a pass/fail basis **(but I reserve the right to deduct points from the max for quality and content reasons)**, a passing score will result in 91 points being added to the test scores for averaging purposes and a fail will result in 60 points being added. Each exam will be worth 50 points. The article reviews will be graded on a -2 to +2 point continuum that **potentially** can be added to the final average. **Graded formative assessments, in whatever format, may be returned to students at times for review and or instructional purposes. Students will not be allowed to keep these assessments. They are to be intended for personal use only and should not be shared or otherwise made available to any other student. Violations of this principle will be considered academic misconduct and will be dealt with according to University Policy.**
The total number of points you earn in this class will be divided by the total number of possible points. That percentage will be used to determine your grade according to the following scale:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
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</tbody>
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**Attendance:**
You are allowed three absences without penalty. For each unexcused absence in excess of three, 10 points will be deducted from your final grade. Please be on time for class. For each tardy arrival (≥10 minutes late) 1 point will be subtracted from your final grade. Also, the instructor retains the right to treat tardiness as a measure of class participation for arrivals < 10 minutes late.

**Article Reviews:**
Three article reviews will be required and can be turned in throughout the semester. Each article should concern some current topic or research interest in balance assessment. The review should be one to two double spaced type-written pages, follow APA style, be adequately referenced, and produced using a word processor. The due date for the first review will be announced in the initial class session. Each review will be graded on a -2 to +2 continuum that may be added to the final average. No reviews will be accepted after the last regularly scheduled class session. The reviews will be graded in accordance with guidelines that will be distributed by the instructor the first week of class.

**Exam 1:** Date to be announced (TBA) with additional class handout
**Exam 2:** Date TBA

**Final Exam:** Date TBA

**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):

1. Cheating (including copying from others’ work)
2. Plagiarism (representing another person’s words or ideas as your own; failure to properly cite the source of your information, argument, or concepts)
3. Falsification of documents
4. Disclosure of test or other assignment content to another student
5. Submission of the same paper or other assignment to more than one class without the explicit approval of all faculty members’ involved

6. Unauthorized academic collaboration with others

7. 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.

Office hours: My office is located in room SRS123, office hours are posted on the door and other times are available by arrangement.

V. Knowledge and Skills
In this course you will acquire knowledge (areas of content that you can recall, relate and use) and skills (the learned capacity to do some task). Your acquisition of knowledge and skills will be assessed during the course of the semester (through formative assessment) and at the end of the semester (through summative assessments). Formative assessments will measure your progress during the course of the semester; they include (but may not be limited to) exams during the semester, your contributions to class discussions and your performance on classroom presentations. Should formative assessment of your progress indicate that you are not meeting the objectives of the class, you may be required to participate in remedial activities designed to permit you to successfully complete the course (such as observation of others that are performing the task appropriately, assignment of additional literature review of the current topic area, or direct discussion of the topic area and performance of the EP test with the Electrophysiology supervisor). Participation in those remedial activities, however, will not guarantee your successful completion of the course. The summative assessment (cumulative final examination) will determine if you have acquired the knowledge and skills expected of students completing the course.

This course is designed to meet the following standards for the Certificate of Clinical Competence in Audiology from the American Speech-Language-Hearing Association:

- Standard IV-A2, A8, A9, A10, A13, A19, A21, A24, A25, A29
- Standard IV-B5, B6
- Standard IV-C1, C2, C3, C4, C6, C10, C11
- Standard IV-D1, D3
- Standard IV-F1, F2
A description of each standard can be found at the following URL: http://www.asha.org/Certification/2012-Audiology-Certification-Standards/

- VI. Learning Outcomes
  Learning outcomes are behaviors that are observable and measurable; at the completion of this course you will be able to:
  - identify the structures in the vestibular system associated with balance
  - discuss the evolution of tests of balance function
  - describe the diagnostic uses for videonystagmography and electronystagmography
  - determine the appropriate use of videonystagmography and electronystagmography
  - describe the methodology used to measure balance function
  - acquire balance function data efficiently and accurately
  - analyze balance function test results assess the diagnostic implications of the responses

Tentative Topic Listing
I. Introduction
  a. role of balance testing in oto-neurology
  b. historical developments in balance testing and evaluation
  c. review of anatomy/physiology of vestibular system
  d. effects of pathologies on vestibular system
II. Instrumentation utilized in VNG/ENG laboratory
III. Patient Considerations
  a. medical conditions
  b. history
  c. medications affecting vestibular evaluation

IV. Selection and administration of appropriate tests of balance
  a. determining appropriate tests
  b. selection of test parameters
  c. preparation of subject

V. Interpretation of test results

VI. Reporting test findings

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 for clarification 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.
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SCHOOL OF SPEECH AND HEARING SCIENCES

Format for Grading an Article Review

Student Name: __________________ Date: __________ Course: __________

Paper topic or title: ________________________________________________

Characteristics Considered
1. Content
   a. Material presented is relevant
   b. Breadth and Depth of discussion is appropriate
   c. Writing is clear and easily understood
   d. Complex ideas are explained adequately

2. Organization
   a. Review is presented in a well thought out manner
   b. Headings are appropriate and sufficient
   c. Strengths and Weaknesses/suggestions for future research
   d. References are appropriately listed

3. Spelling and grammar
   a. Paper is free of spelling and Grammatical errors

4. Timeliness
   a. Completed in accordance with time constraints.

Points Earned: -2 to +2 added to final average.
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SCHOOL OF SPEECH AND HEARING SCIENCES

Format for Grading Demonstration of a VNG/ENG Skill/Task/Procedure

**Student Name:** __________________________

**Instructor:** ____________________________

<table>
<thead>
<tr>
<th>Procedure/Skill/Task</th>
<th><em>Successful</em></th>
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<tbody>
<tr>
<td></td>
<td>Demonstration</td>
</tr>
<tr>
<td>1. Calibration</td>
<td>____________</td>
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<tr>
<td>2. Saccade testing</td>
<td>____________</td>
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<tr>
<td>3. Tracking</td>
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<td>4. OPK testing</td>
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<tr>
<td>6. Gaze testing</td>
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<tr>
<td>7. Dix-Hallpike</td>
<td>____________</td>
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<tr>
<td>8. Positional testing</td>
<td>____________</td>
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<tr>
<td>9. Caloric testing</td>
<td>____________</td>
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</tbody>
</table>

*A check mark or X designates that the instructor has judged that the above named student has demonstrated proficiency in accomplishing the described skill, task, or procedure. Proficiency includes demonstration of understanding the underlying fundamental concepts as well as the ability to administer and interpret the skill, task, or procedure with no assistance from the instructor.*