

## DEPARTMENT OF COMMUNICATION SCIENCES AND DISORDERS FLORIDA ATLANTIC UNIVERSITY

FALL 2013

Course Syllabus

#### SPA 4030

#### HEARING AND HEARING PROBLEMS

http://www.coe.fau.edu/faculty/danesh/courses/SPA\_4030.htm

Professor: Dr. Ali Danesh, M.S., PhD, CCC-A, FAAA

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E-mail: danesh@fau.edu

Office Hours: 1:00 - 3:50 p.m. on Tuesdays &Thursdays (make appointments please).

Class Time: 4:00-6:50 p.m., Tuesdays.

Class Location: ED 124

**Required Text**: Martin, F.N. and Clark, J.G. (2010). <u>Introduction to Audiology</u>,11<sup>th</sup> ed. Boston: Allyn & Bacon. ISBN-10:

0132108216 | ISBN-13: 978-0132108218

#### **Internet Resources:**

See below or type keywords such as audiology, hearing, and hearing loss in search engines. <a href="https://www.audiology.org">www.audiology.org</a>
<a href="https://www.asha.org">www.asha.org</a>

Each lecture is combined with interesting websites for further discussion.

\*\*\* All lecture materials including this syllabus, powerpoints, and handouts will be available via FAU blackboard: http://blackboard.fau.edu

#### **COURSE OBJECTIVES:**

The student will be able to demonstrate:

- 1. Knowledge of the anatomical/physiological organization of the auditory system.
- 2. Knowledge of the etiology and effects of hearing impairment
- 3. Knowledge of pathological conditions of the auditory system and their management.
- 4. Knowledge of the various procedures for testing hearing and interpreting hearing test results.
- 5. Knowledge of different types of programs available to hearing impaired students and their management.
- 6. Knowledge of amplification equipment and assistive listening devices.
- 7. Knowledge of the rehabilitation techniques for hearing-impaired adult.

#### ALSO SEE KASA TABLE AT THE END OF THIS DOCUMENT

#### **Assignments**:

- 1. Readings: Students are required to read the text and other supporting materials. There will be AUDIOLOGY laboratory sessions and students are required to participate.
- 2. Due to the nature of the field of Communication Sciences and Disorders, **Student Participation** in class activities and discussions is encouraged.
- 3. Term Project: Each student is required to research/review one of the followings: 1) a pathological condition that results in hearing loss (e.g., genetic disorders, trauma, accidents, diseases, etc) 2) any topic related to audiology, hearing aids, and rehabilitation of hearing impaired individuals. Each paper must be between 500-750 words; double spaced, and *must* include references (words for references will not count toward the total number of word count!). Plagiarism will not be tolerated. All of the papers should be submitted in electronic format (e.g., e-mail attachment) and hard copy. Papers randomly may be submitted to *safeassign* software for verification and plagiarism purposes. Some well written papers may be published on line on the course or instructor's website with your name. Include all of your references and sources including internet sources. Please see me if you have any questions regarding your project. Failure to submit the project will result in an F grade. See below for the due dates.

#### **GRADING POLICY:**

- 1. Project: 10% (i.e., 10 points) of your final grade. Failure to submit the project will result in an F grade.
- 2. Three tests will be given (30% each).

#### **GRADING SCALE:**

A	=	93-100	C+	=	77-79.99
A-	=	90-92.99	C	=	73-76.99
B+	=	87-89.99	C-	=	70-72.99
В	=	83-86.99	D+	=	67-69.99
B-	=	80-82.99	D	=	63-66.99
			F	<	63%

**ATTENDANCE POLICY:** According to University policies "Students are expected to attend all of their scheduled University Classes and to satisfy all academic objectives as outlined by the instructor." Attendance includes meaningful, active involvement in all class sessions, class discussions, and class activities as well as professional, ethical, conduct in class. Reasonable accommodations are made for religious observances.

**STUDENTS WITH DISABILITIES:** In Compliance with The Americans with Disabilities Act (A.D.A.), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca – SU 133 (561-297-3880), in Davie – MOD I (954-236-1222), or in Jupiter – SR 117 (561-799-8585) and follow all OSD procedures. The purpose of this office "is to provide reasonable accommodations to students with disabilities." Students who require assistance should notify the professor immediately by **submitting a letter from the Disabilities Office to your instructor** requesting your need of specific assistance. Without such letter, the instructor is not obligated to make any accommodations for students.

**CODE OF ACADEMIC INTEGRITY:** Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see <a href="http://www.fau.edu/regulations/chapter4/4.001">http://www.fau.edu/regulations/chapter4/4.001</a> Code of Academic Integrity.pdf.

#### **CELLPHONE POLICY:** Off or silent mode!

**ELECTRONIC ETIQUETTE:** We are living in an electronic era. Use of technology in my classes is acceptable as long as there is no abuse. You can use your laptop in my class for note taking or surfing the web for course materials ONLY.

**TEXT MESSAGING AND E-MAIL CHECK:** Not acceptable!!! However, multi tasking is possible for the young minds like yours. If you choose to text during the class the professor has the right to ask questions from you about the lecture. If you fail to provide him with correct/appropriate answer you will lose the privilege to use texting for the rest of the semester.

#### POLICY REGARDING PLAGIARISM AND CHEATING (partially adopted from Deena L. Wener, PhD):

There is a zero-tolerance policy for students found plagiarizing or cheating. Students who are found cheating or plagiarizing will receive an immediate "F" in the course.

Plagiarism, as defined by Webster's Unabridged Dictionary, is:

"The unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one's own original work."

Plagiarism encompasses both the presentation of a prominent or published author's work as your own and the presentation of another student's work as your own. This also includes presenting another's thoughts or opinions as your own in oral presentation.

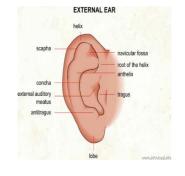
Cheating, with regard to exams, as defined by Webster's Unabridged Dictionary, is:

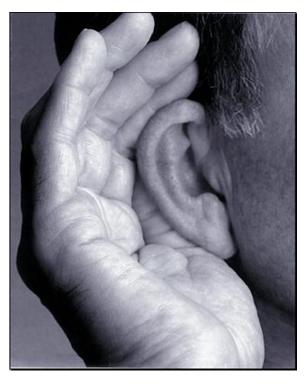
"The taking of an examination or test in a dishonest way, as by improper access to answers."

Examples would include, but are not limited to, copying answers from another student's paper or bringing written answers into an exam without authorization.

#### **Class Schedule**

#### LISTEN UP!





#### **Date**

#### Topic/Reading

### 8/27/13 MANDATORY READING" THE AUDITORY SYSTEM" FROM DALE F. WILLIAMS (Ed)

Introduction to Audiology (Chapter 1), Anatomy and Physiology of the Auditory System (Chapter 2)

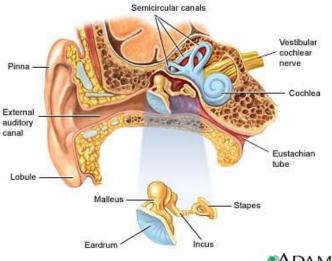
http://www.audiology.org/index.php (American Academy of Audiology)

http://www.asha.org/ (American Speech and Hearing Association)

http://www.nidcd.nih.gov/ (National Institute of Deafness and Other Communication Disorders)

http://www.audiologyonline.com/audiology/newroot/default.asp (sign up needed)

http://www.iurc.montp.inserm.fr/cric/audition/english/start2.htm (anatomy)



\*ADAM.

9/3/13 Anatomy and Physiology continued: Introduction to Basic Acoustics (Chapter 3) http://www.augie.edu/perry/ear/hearmech.htm (anatomy) http://www.rcsullivan.com/www/ears.htm (otoscopic views)

http://serous.med.buffalo.edu/hearing/ (central auditory pathway)

http://hyperphysics.phy-astr.gsu.edu/hbase/sound/soucon.html#soucon (Excellent acoustics website)

9/10/13 Anatomy and Physiology continued: Introduction to Basic Acoustics (Chapter 3) Continued;

9/17/13 Basic Acoustics

Visit and familiarize yourself with materials in the following websites:

http://www.sfu.ca/sonic-studio/handbook/index.html

http://hyperphysics.phy-astr.gsu.edu/hbase/sound/soucon.html#soucon

http://library.thinkquest.org/19537/?tqskip1=1&tqtime=0619

9/24/13 Basic Acoustics Continued:

http://www.mmk.e-technik.tu-muenchen.de/persons/ter.html (advanced acoustics)

10/1/13 Audiologic assessment, techniques, tools (Chapters 4, 5, 6, and 7)

http://www.va.gov/621quillen/clinics/asp/Products/PRIMER/pri-index.htm (Audiology Primer)

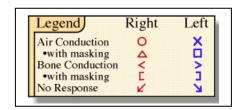
 $\underline{http://www.aap.org/otitismedia/www/vc/ear/rvw/rvw1.cfm} \ (otoscopy)$ 

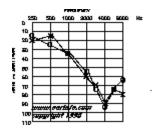
http://www.audiologyawareness.com/hhelp/audiogrm.htm (audiograms)

10/8/13 **Test One** Audiologic assessment (continued), *Audiology Lab 1 in class* 

http://www.jsu.edu/depart/dss/VRProject/audiograms.html (how to read audiograms)

http://www.bcm.tmc.edu/oto/studs/aud.html (basic info)





10/15/13 Audiologic assessment , techniques, tools continued Chapters 4, 5, 6, and 7).

http://www.asha.org/hearing/testing/index.cfm (screening)

10/22/13 Audiogram Practice. Audiologic assessment, techniques, tools continued (Chapters 4, 5, 6, and 7)

http://www.bcm.tmc.edu/oto/studs/innear.html (basic info)

10/29/13 Audiogram Practice. Audiologic assessment, techniques, tools continued (Chapters 4, 5, 6, and 7)

http://www.emedicine.com/ent/topic371.htm (speech audiometry)

11/5/13 Hearing tests for children, Referral, Screening and Identification (Chapter 8).

http://www.nidcd.nih.gov/health/hearing/screened.asp (hearing tests for children)

 $\underline{http://www.nidcd.nih.gov/health/hearing/otitismedia.asp} \ (otitis \ media)$ 

http://www.nidcd.nih.gov/health/statistics/hearing.asp (statistics)

11/12/13 **Test Two.** Nature and types of hearing impairment (chapters 9 and 10)

http://www.augie.edu/perry/ear/heardis.htm (Hearing Disorders)

http://www.nidcd.nih.gov/health/hearing/index.asp (ear diseases)

http://www.entnet.org/

11/19/13 Nature and types of hearing impairment; continued (chapters 11, 12, and 13).

http://www.merck.com/pubs/mmanual/section7/sec7.htm (ear diseases/medications)

http://www.bgsm.edu/neurology/toxicity/tox1.html#TOUTLINE (ototoxicity)



http://www.youtube.com/watch?v=MGj-cdn2M9o (noise exposure) http://www.youtube.com/watch?v=kLSYq5kau w (turn it to the left)

11/26/13 Nature and types of hearing impairment; continued (chapters 11, 12, and 13).

http://www.turnittotheleft.com/

http://www.occupationalhearingloss.com/ (NIHL) NOISE INDUCED HEARING LOSS

http://library.gallaudet.edu/dr/faq-etiol.html (glossary)

http://www.nidcd.nih.gov/health/healthyhearing/tools/pdf/Presbycusis.pdf (presbycusis article)







12/3/13 Management of the Hearing Impairment, Hearing aids, Amplification (Chapters 14 and 15). *Audiology/Hearing Aid Lab 2 in class.* **Project Due Date.** 

Management of the Hearing Impairment continued (Chapters 14 and 15).

Cochlear implants. Assistive listening devices

http://www.nidcd.nih.gov/health/hearing/coch.asp (cochlear implants)

http://www.augie.edu/perry/ear/ear.htm (general info)

http://dept.kent.edu/hearingaidmuseum/development.html (Hearing Aid museum)

http://www.audiologynet.com/hearing-aids.html (hearing aid info)



#### 12/10/13 **Test Three**

- \* The CD accompanied with the text is a great source for information and works also as a test guide.
- \* Additional Audiology texts are available in the Main Library.
- \* A medical dictionary is recommended.

### KNOWLEDGE AND SKILLS ACQUISITION

COURSE NUMBER & TITLE: SPA 4030 – HEARING AND HEARING PROBLEMS

http://www.coe.fau.edu/csd/SPA 4030.htm

**INSTRUCTOR: DANESH** 

	Standard:	III					IV				
		A	В	C	D	E	F	G	H	$\mathbf{B}^{1}$	$\mathbf{B}^2$
		Principles-biological/physical sciences, mathematics, social/ behavioral sciences.	Principles-basic human communication/swallowing processes: bio, neuro, acoustic, psych, devel, ling/cult	Nature of sp/lang/hrng/commun dis/diff & swallowing dis: etiology, characteristics, anat/phys, acoustic, psych, devel, ling/cult correlates	Principles/methods-prevention, assessment, intervention- communication/swallowing dis	Standards of ethical conduct	Processes-research, integration of research, evidence-based prac	Contemporary professional issues	Professional credentials: cert, specialty recog, licensure	mication	Written communication
Learner Outcomes	Assessment Method	Principles-biological/p sciences, mathematics, social/behavioral scien	Principles-basi communication processes: bio, devel, ling/cult	Nature of sp dis/diff & sv characterist psych, devel	Principles/n assessment, communicat	Standards o	Processes-re	Contempora	Professional specialty rec	Oral communication	Written con
1. The student will understand basic and intermediate acoustical concepts.	exams, written assignments, in-class discussion	X	X	X							
2. The student will be able to understand structure and function of the human auditory system.	exams, written assignments, in-class discussion	X	X	X							
3. The student will be able to understand the techniques in hearing measurement. The student will be knowledgeable about pure tone audiometry, speech audiometry, and tympanometry.	exams, written assignments, in-class discussion	X	X	X	X						
The student will demonstrate the ability in interpretation of audiometric test results. The student will be able to identify major types of hearing loss.	exams, written assignments, in-class discussion	X	X	X							
The student will exhibit knowledge of pathologies of the auditory system including the common diseases of the external ear, middle ear and inner ear. The student will be able to identify hazardous factors such as noise and ototoxic agents.	exams, written assignments, in-class discussion	X	X	X	X						

# KNOWLEDGE AND SKILLS ACQUISITION SPA 4030 – HEARING AND HEARING PROBLEMS

	Standard: III						IV				
		A	В	C	D	E	F	G	Н	$\mathbf{B}^{1}$	$\mathbf{B}^2$
		Principles-biological/physical sciences, mathematics, social/ behavioral sciences.	Principles-basic human communication/swallowing processes: bio, neuro, acoustic, psych, devel, ling/cult	Nature of sp/lang/hrng/commun dis/diff & swallowing dis: etiology, characteristics, anat/phys, acoustic, psych, devel, ling/cult correlates	Principles/methods-prevention, assessment, intervention- communication/swallowing dis	Standards of ethical conduct	Processes-research, integration of research, evidence-based prac	ıry professional issues	Professional credentials: cert, specialty recog, licensure	mication	Written communication
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6. Student will be able to identify different types of amplification devices. Student will be familiar with the aural rehabilitation process.	exams, written assignments, in-class discussion	X	X	X	X		X				
Each student is required to independently write a 500-1000 word essay on one of the topics related to hearing and hearing disorders.	Grading rubric content(75%), spelling(15%) references (10%)										X