Term Information

Autumn 2019

General Information

Course Bulletin Listing/Subject Area	Speech and Hearing Science
Fiscal Unit/Academic Org	Speech & Hearing - D0799
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	4630
Course Title	Neuroscience of Speech, Language, and Music
Transcript Abbreviation	NeuroSp/Lang/Mus
Course Description	Music and language are integral and universal components of human nature, as proved by their ubiquity across all cultures. This course is designed to offer a general overview of the neuroscience of speech, language, and music, a glimpse of research in this emerging discipline, and a sample of the current and possible applications for the health and well-being of healthy and clinical populations.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Νο
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	None.
Exclusions	
Electronically Enforced	Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code Subsidy Level Intended Rank 51.0202 Baccalaureate Course Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details				
Course goals or learning	•1. Students will understand how our minds process both low-level (e.g. acoustic properties) and high-order aspects			
objectives/outcomes	(e.g. meaning) of sound in speech, language, and music.			
	• 2. Students will gain appreciation for how musicality affects speech and language performance.			
	• 3. Students will become familiar with a wide variety of settings in which music is used to improve health and sense of			
	well-being. Students will learn music-based intervention programs for various types of neurological disorders.			
	• 4. Students will learn how to think critically about the relationship between speech, language, and music from a			
	clinical perspective.			
Content Topic List	• neuroanatomy of auditory processes, auditory cognitive neuroscience, musical disorders, dyslexia and SLI, music			
	training and learning, aphasia and apraxia, music and language acquisition, normal aging, dementia and memory,			
	Parkinson's disease			
Sought Concurrence	Yes			
Attachments	•Lee_course_syllabus_final (1).docx: Syllabus			
	(Syllabus. Owner: Harnish,Stacy M)			
	 Concurrence_Form_BMW (1).pdf: Linguistics Concurrence 			
	(Concurrence. Owner: Harnish,Stacy M)			
	 FW_ course concurrence_Music.pdf: Music Concurrence 			
	(Concurrence. Owner: Harnish,Stacy M)			

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Harnish,Stacy M	08/28/2018 02:52 PM	Submitted for Approval
Approved	Fox,Robert Allen	10/15/2018 04:13 PM	Unit Approval
Approved	Haddad, Deborah Moore	10/15/2018 04:18 PM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadet te Chantal Oldroyd,Shelby Quinn Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler	10/15/2018 04:18 PM	ASCCAO Approval

Neuroscience of Speech, Language, and Music

Instructors & contact information

Yune S.Lee, Ph.D. Assistant Professor, Dept. of Speech & Hearing Science, Center for Brain Injury <u>lee.7966@osu.edu</u>; 104d Pressey Hall

Class Website: Canvas / Carmen **Office Hours: by appointment**

Description:

Music and language are integral and universal components of human nature, as proven by their ubiquity across all cultures. There is a growing body of behavioral evidence indicating connections between music and language abilities. The advent of state-of-theart neuroscience technology (e.g., functional neuroimaging) allows us to study the relations more systematically at the neural level. This course is designed to offer a general overview of the neuroscience of speech, language, and music, a glimpse of research in this emerging discipline, and a sample of the wide variety of current and possible applications for the health and well-being of both normal/healthy and clinical populations. The course does not require a background in neuroscience.

Learning Objectives:

- 1. Students will understand how our minds process both low-level (e.g., acoustic properties) and high-order aspects (e.g., meaning) of sound in speech, language, and music.
- 2. Students will gain appreciation for how musicality affects speech and language performance.
- 3. Students will become familiar with a wide variety of settings in which music is used to improve health and sense of well-being. By the end of the course, students will learn music-based intervention programs for various types of neurological disorders.
- 4. Students will learn how to think critically about the relationship between speech, language, and music from *a clinical perspective*.

COURSE REQUIREMENTS AND GRADING

• Attendance and participation (10% of grade): Be prepared for lectures and discussion by completing the readings. Of course, you need to attend class to participate. But you also need to be able to formulate and answer questions. Be generous (and brave!) in sharing your thoughts and creating an intellectually stimulating environment. The more we engage in discussion, the more interesting our meetings will be. The use of technology will facilitate participation in class and in between classes as well as the taking of quizzes based on readings and class discussions (e.g., Canvas and i-clicker app for mobile phone (https://www.reef-education.com/). Absence of each class is worth of losing 10% of the attendance score (a total of 10). For example, if you miss the class twice, your attendance grade would be 8.

• **Group project (30%):** There will be a team project developing a study. Each team will present their work to the class. The assignment will focus on one of the topics of the course (your choice) and will require you (1) to find, read, summarize, and analyze readings from research sources (e.g., research journals) and non-research sources (e.g., policy, clinical, or educational documents , websites, pamphlets), (2) find a clinical/applied setting in which such topic is relevant (e.g., hospital, retirement home, daycare, gym, etc) and complete an observation, (3) write a paper consisting of a review of literature (5 pages max), detailed observation report (5 pages max), proposal for further research and possible implications of research for health and well-being (3 pages max), complete list of references (10 research references minimum), and a list of valuable resource materials accessible to the public (e.g., websites, books, non-research articles) (5 minimum). Each member of the team should be involved in the development of every aspect of the project.

• Midterm Exam (25%) and Final Exam (35%) Multiple choice and short answers covering materials from all the readings, class discussions, and peers' handouts. Note that there will be new material presented in class and that you will be responsible for taking notes to review such material.

Extra Credit: We will provide opportunities for you to complete extra credit assignments if you so wish. Get ready to sing and dance for the class!

Grading Scale (%):

А	93-100	В	83-86	C+	73-76	D	63-66
A-	90-92	B-	80-82	C-	70-72	Е	<63
B+	87-89	C+	77-79	D+	67-69		

Readings (Optional TextBook): Oxford Handbook on Music and the Brain, *Oxford University Press*

	Торіс	Reading
Week 1:	Course overview	
Week 2:	Neuroanatomy of auditory processes	Ch 6, 7
Week 3:	Experimental methods to study auditory	Ch 19
	cognitive neuroscience	
Week 4:	Musical Disorders	Ch 31
Week 5:	Dyslexia and SLI (Specific Language	Ch 25, 29
	Impairment)	
Week 6:	Music training and Learning	Ch 27
Week 7:	Aphasia and Apraxia	Ch 29
Week 8:	Review and Midterm exam	
Week 9:	Music and Language Acquisition	Ch 24
Week 10:	Normal aging	Ch26
Week 11:	Dementia and memory	Ch 11
Week 12:	Parkinson's Disease	Ch 14, 33
Week 13:	Team project presentation	
Week 14:	Course Review	
Week 15:	Final exam	

SCHEDULE OF LECTURES AND ASSIGNMENTS:

CLASS POLICIES

- 1. Lecture topics scheduled in this syllabus are subject to change. Any changes will be announced in class.
- 2. Late assignments will **not** be accepted for credit.
- 3. Class lectures include the textbook; however, additional information is covered during lecture that may not be covered in the textbook.
- 4. Cell Phones: The use of cell phones or pagers during class is prohibited. Please extend the courtesy to your classmates and the instructor by turning off your cell phone during class time.

DIVERSITY

Our university has a long legacy of embracing inclusion, diversity, community, and openness. Our challenge is to ensure that we continue to be proactive in our efforts to nurture and realize these values. Therefore, we will continue to make every effort to welcome students of different backgrounds, cultures, and opinions and work to maintain an environment that is respectful of this diversity. University policies and other resources may be found here: <u>http://www.studentaffairs.osu.edu/bias/</u>

STUDENTS WITH DISABILITIES

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible about their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292 3307, TDD 292 0901; on the web at http://www.ods.ohio-state.edu

ACADEMIC MISCONDUCT

Academic misconduct refers to any activity that compromises the academic integrity of the university or undermines the educational process. Academic misconduct will not be tolerated. Instances believed to constitute misconduct will be reported to the committee on academic misconduct. Examples include but are not limited to: plagiarism, cheating on examinations, violation of course rules outlined in this syllabus. Additional examples of academic misconduct are outlined below. Further information can be found in your student handbook and at the office of student affairs http://studentaffairs.osu.edu/resource_csc.asp

Examples of academic misconduct include, but are not limited to:

- 1. Violation of course rules as contained in the course syllabus or other information provided to the student; violation of program regulations as established by departmental committees and made available to students;
- 2. Knowingly providing or receiving information during examinations such as course examinations and candidacy examinations; or the possession and/or use of unauthorized materials during those examinations;
- 3. Knowingly providing or using assistance in the laboratory, on field work, in scholarship or on a course assignment;
- 4. Submitting plagiarized work for an academic requirement. Plagiarism is the representation of another's work or ideas as one's own; it includes the unacknowledged word-for-word use and/or paraphrasing of another person's work, and/or the inappropriate unacknowledged use of another person's ideas;

- 5. Submitting substantially the same work to satisfy requirements for one course or academic requirement that has been submitted in satisfaction of requirements for another course or academic requirement, without permission of the instructor of the course for which the work is being submitted or supervising authority for the academic requirement;
- 6. Falsification, fabrication, or dishonesty in creating or reporting laboratory results, research results, and/or any other assignments;
- 7. Serving as, or enlisting the assistance of a substitute for a student in the taking of examinations;
- 8. Alteration of grades or marks by the student in an effort to change the earned grade or credit;
- 9. Alteration of academically-related university forms or records, or unauthorized use of those forms or records; and
- 10. Engaging in activities that unfairly place other students at a disadvantage, such as taking, hiding or altering resource material, or manipulating a grading system.

The Ohio State University College of the Arts and Sciences Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental reactions to course requests. An e-mail may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Units should be allowed two weeks to respond to requests for concurrence.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Proposal to review

Initiating Academic Unit	Course Number	Course Title	
Type of Proposal (New, Change, Withdrawal, or		or other)	Date request sent
Academic Unit Asked to F	Review		Date response needed

B. Response from the Academic Unit reviewing

Response: include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

Signatures

1.	Name	Position	Unit	Date
2.	Name	Position	Unit	Date
3.	Name	Position	Unit	Date

FW: course concurrence

EJ

Edwards, Jan

Wed 8/8, 3:59 PM Harnish, Stacy M.; Ballenger, William L. ≯ 🕨 🖏 Reply all 🛛 🗸

You forwarded this message on 8/8/2018 4:07 PM

Lee_course_syllabus_v4...

Show all 1 attachments (33 KB) Download Save to OneDrive - The Ohio State University

Good afternoon,

I am pleased to provide the School of Music's full support for the revised proposal *Neuroscience of Speech, Language, and Music.* Best wishes to Dr. Lee and the Department of Speech and Hearing Science on the first offering of the course.

~Jan Edwards

THE OHIO STATE UNIVERSITY

Jan Edwards, PhD Associate Director and Chair of Undergraduate Studies Associate Professor College of Arts and Sciences School of Music 110 Weigel, 1866 N College Rd, Columbus, OH 43210 614-292-2870 Office edwards.689@osu.edu music.osu.edu

Buckeyes consider the environment before printing.

From: "Ballenger, William L." <ballenger.46@osu.edu> Date: Wednesday, August 8, 2018 at 3:36 PM To: "Edwards, Jan" <edwards.689@osu.edu> Subject: FW: course concurrence

Can you look this one over please, and then respond to Ms. Harnish? I believe you did this before.



THE OHIO STATE UNIVERSITY

William L. Ballenger, Director
School of Music
College of Arts and Sciences
110 Weigel Hall, 1866 College Road, Columbus, OH 43210
614-292-7664 Office
Ballenger.46@osu.edu

From: "Harnish, Stacy M." <harnish.18@osu.edu> Date: Tuesday, August 7, 2018 at 1:13 PM To: "Ballenger, William L." <ballenger.46@osu.edu> Subject: course concurrence

Dear Dr. Ballenger,

I am writing to introduce myself as the new curriculum coordinator for Speech and Hearing Science. I understand that a course that Dr. Yune Lee requested to teach had significant overlap with a course taught in your department. Dr. Lee has revised his syllabus to address these concerns. Please see the attachment. We are requesting concurrence with Music for Dr. Lee to teach this course in SHS. Is the revised syllabus acceptable?

Please let me know if you have any questions or concerns.

Best Wishes,

Stacy M. Harnish, Ph.D., CCC-SLP Assistant Professor Department of Speech and Hearing Science 110 Pressey Hall, 1070 Carmack Rd, Columbus, OH 43210 (614) 688-1471 Office / (614) 292-7504 Fax harnish.18@osu.edu http://u.osu.edu/aphasialab/