

Term Information

Effective Term 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? No
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 51.0202
Subsidy Level Baccalaureate Course
Intended Rank 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 objectives/outcomes

- 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. 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

- Concurrence_Form_BMW (1).pdf: Linguistics Concurrence
(Concurrence. Owner: Harnish,Stacy M)
- FW_ course concurrence_Music.pdf: Music Concurrence
(Concurrence. Owner: Harnish,Stacy M)
- Psych concurrence.pdf: Psychology Concurrence
(Concurrence. Owner: Harnish,Stacy M)
- SHS curriculum map_updated_10-23-2018_Yune's course.docx: Curriculum Map
(Other Supporting Documentation. Owner: Harnish,Stacy M)
- Lee_course_syllabus_v7.docx: Syllabus
(Syllabus. Owner: Harnish,Stacy M)

Comments

- See email feedback 10-24-18. *(by Vankeerbergen,Bernadette Chantal on 10/24/2018 10:53 AM)*

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
Revision Requested	Vankeerbergen,Bernadette Chantal	10/24/2018 10:54 AM	ASCCAO Approval
Submitted	Harnish,Stacy M	11/01/2018 09:43 PM	Submitted for Approval
Approved	Fox,Robert Allen	11/01/2018 09:52 PM	Unit Approval
Approved	Haddad,Deborah Moore	11/02/2018 11:14 AM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadette Chantal Oldroyd,Shelby Quinn Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler	11/02/2018 11:14 AM	ASCCAO Approval

SHS4630. 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
lee.7966@osu.edu; 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-the-art 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: Extra credit will be provided if you fulfill any of the following activities:

- Participating in an experiment
- Reporting a summary about a movie related to neuroscience
- The list of available experiments and movies will be posted in Carmen.

Grading Scale (%):

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

Readings (Required TextBook): Oxford Handbook on Music and Neuroscience, *Oxford University Press*

SCHEDULE OF LECTURES AND ASSIGNMENTS:

	Topic	Reading
Week 1:	Course overview	
Week 2:	Neuroanatomy of auditory processes	Ch 6, 7
Week 3:	Experimental methods to study auditory cognitive neuroscience	Ch 19
Week 4:	Musical Disorders	Ch 31
Week 5:	Dyslexia and SLI (Specific Language Impairment)	Ch 25, 29
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	

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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	

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 department and our university have 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: <http://www.studentaffairs.osu.edu/bias/>

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.

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... ▾
33 KB

▾ 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



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.



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/>

From: [Emery, Charles](#)
To: [Harnish, Stacy M.](#)
Cc: [McCarthy, Kevin](#)
Subject: RE: concurrence request
Date: Tuesday, October 30, 2018 12:37:53 PM
Attachments: [image001.png](#)

We have reviewed the syllabus for this course and have no objections to your proceeding with creation of the course. I believe this email communication is sufficient. If you need a signed concurrence form, please complete the required course information and forward to my assistant, Kevin McCarthy (mccarthy.232@osu.edu).

Regards,
CFE

Charles F. Emery, Ph.D.
Professor and Chair
Department of Psychology
Ohio State University
Columbus, OH 43210
614-688-3061

From: Harnish, Stacy M.
Sent: Tuesday, October 23, 2018 12:28 PM
To: Emery, Charles <emery.33@osu.edu>
Subject: concurrence request

Dear Dr. Emery,

We are seeking concurrence from Psychology for a new undergraduate course that one of our faculty members in Speech and Hearing Science would like to create. Attached is the syllabus for the course. Please let me know if you have any questions or concerns. If you do not, we request completion of the attached concurrence form in order to move forward with creation of the course.

Thank you for your time.

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 u.osu.edu/aphasialab/

Preferred pronouns: she/her

Buckeyes consider the environment before printing.

The Ohio State University College of the Arts and Sciences Concurrence Form
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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 other)		Date request sent
Academic Unit Asked to 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

Curriculum Map: B.A. Speech & Hearing Science

Program Goals:

Goal 1: To provide students with a foundation in typical speech and language development

Goal 2: To provide students with a foundation in the hearing mechanism

Goal 3: To introduce students to speech and language disorders and intervention

Goal 4: To introduce students to hearing disorders and intervention

Required Courses	Goal (1)	Goal (2)	Goal (3)	Goal (4)
SHS 2230 – Introduction to Communication and Its Disorders	Beginning	Beginning	Beginning	Beginning
SHS 3320 – Principles of Phonetics	Beginning		Beginning	
SHS 3330 – Language Acquisition	Beginning		Beginning	
SHS 3330H	Beginning		Beginning	
SHS 3340 – Introduction to the Art and Science of Sound		Beginning	Beginning	
SHS 3360 Observation in Speech-Language Pathology and Audiology			Intermediate	Intermediate
SHS 4420 – Anatomy, Physiology and Science of Speech	Intermediate		Intermediate	
SHS 4430 – Introduction to Language and Science and Language Disorders	Intermediate		Intermediate	
SHS 4440 - Anatomy, Physiology and Science of Hearing		Intermediate		Intermediate
SHS 4520 Introduction to Speech-Language Pathology	Advanced		Advanced	
SHS 4540 Introduction to Audiology		Advanced		Advanced
SHS 5605 Multicultural Aspects of Communication and its Disorders	Advanced		Advanced	
Elective Courses				
SHS 2051 Analyzing the Sounds of Language	Beginning			
SHS 3350 Speech-Language Communication Across the Life Span: Issues and Problems in our Community	Beginning	Beginning	Beginning	Beginning
SHS 4510 Disability in Context	Intermediate	Intermediate	Intermediate	Intermediate
SHS 4530 Introduction to Autism	Advanced		Advanced	
<u>SHS 4630 Neuroscience of Speech, Language, and Music</u>	<u>Intermediate</u>	<u>Intermediate</u>	<u>Intermediate</u>	<u>Intermediate</u>
SHS 5732 – Introduction to Aural Rehabilitation		Advanced	Advanced	Advanced
SHS 5760 – Neurology of the Speech and Hearing Mechanism	Advanced	Advanced	Advanced	Advanced
SHS 5714 Introduction to Sign Language Systems	Beginning			
SHS 5741 Voice Disorders	Advanced		Advanced	
SHS 5785 Research Methods I				
PSY 5700 Training in Science Education and Outreach	Advanced	Advanced		
PSY 5737 Proseminar in Cognitive Science	Advanced	Advanced		

Undergraduate Research				
SHS 4999	Advanced	Advanced	Advanced	Advanced
SHS 4999H	Advanced	Advanced	Advanced	Advanced
General Education Courses:				
SHS 3330	Beginning		Beginning	
SHS 3330H	Beginning		Beginning	
SHS 3350 Speech-Language Communication Across the Life Span: Issues and Problems in our Community	Beginning	Beginning	Beginning	Beginning