

Indiana University
 Jacobs School of Music, Music Education
Psychology of Music – E619 – Spring 2024
 M, W: 9:45 to 11:00, MA B012

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Course Description:

This course is a survey of selected psychological perspectives on musical experience and learning. The most substantial unit in the course will deal with the cognitive components of music performance. We will also explore the neurological bases of musical. This will be followed by an introduction to basic acoustical principles and physiological processes for experiencing sound as well as traditional topics of music perception and cognition. Finally, we will briefly consider the evolutionary bases for musicality, the emerging concept of embodied cognition, and the nature of peak experiences in music.

Required Text:

Hallam, S., Cross, I., & Thaut, M. (Eds.) (2016). The Oxford handbook of music psychology (2nd ed.). Oxford University Press. *[Electronic version available via Library]*

Goals:

- To provide a basic introduction to origins of musical experience and the primary acoustical and physiological elements of sound and hearing.
- To provide a foundational understanding of neurological function related to music and explore connections between musical ability and other abilities.
- To consider theoretical explanations for the perception and cognition of basic musical elements.
- To consider how research in skill acquisition might inform music learning.

Objectives:

Upon completing this course students will be able to...

- Explain basic elements of psychoacoustics and human hearing.
- Explain the basic anatomy of the brain.
- Discuss trends in research linking musical experience and cognitive neuroscience.
- Discuss how musical ability may or may not be related to other cognitive abilities.
- Describe and synthesize theories of music perception and cognition regarding tonality, temporal aspects of music, and melody.
- Describe a theoretical model of memory and discuss the role of memory in musical skill acquisition.
- Analyze and apply research pertaining to musical skill acquisition from a variety of perspectives.

Assessment:

There are 310 TOTAL points to earn for this course:

Discussion Posts (100)
 Project Topic (20)
 Article Presentation (60)
 Perception activities (30)
 Final Project (100)

Grading (in percentage):

A+	98-100	B+	87-89	C+	77-79	D+	67-69	F	Below 60
A	94-97	B	84-86	C	74-76	D	64-66		
A-	90-93	B-	80-83	C-	70-73	D-	60-63		

Assignments: (12 pt Times New Roman font, double-spaced, 1-inch margins)

1. *Discussion Posts:* Students will contribute to 10 discussion posts for topics as indicated in the syllabus. The content of the post should be no more than 500 words and should address the questions included in each prompt.
2. *Project Topic:* Students will submit a rationale and description of the topic they have chosen for their final project that will not exceed 1.5 double spaced pages of text. Please also indicate whether you choose option “a” or “b” (see #5 below). Students will also submit a reference list of 10 refereed, research sources they intend to use for their final project (adhere to APA format <https://owl.english.purdue.edu/owl/resource/560/01/>).
3. *Perception Activities:* Students will complete a brief activity for each class session in the unit titled “sound.” The first is to measure dB levels in spaces they commonly occupy as well as research what an audiogram is and how to get one. The second is to explain the basics of the physics of sound to someone who has not learned about it before (e.g., energy, mass, elasticity, periodic motion - frequency/amplitude, compressions/rarefactions). Ask your acquaintance to explain it back to you to assess their understanding. The third is to analyze sustained complex tone (e.g., musical tone) that you produce using the free software Sonic Visualiser. Explore the frequency, amplitude, sound envelope, and spectrogram of the sound sources.
4. *Article Presentation:* Part I—Students will summarize an assigned article on the collaborative course spreadsheet; Part II—Students will present their summary in no more than 15 minutes along with critical commentary to the class; Part III—Students will also pose two to three discussion questions to engage the class following their summary and critique; Part IV—A slideshow must accompany the presentation.
5. *Final Project:* Students may choose from one of the following options for their final project (15 to 20 pages in length): (a) a comprehensive research literature review delving into one of the topics of the course or an approved relevant topic or (b) the completion of two proposals for original empirical studies. Further delineation between the required work and documentation for these options is provided in the detailed assignment description on Canvas.

IU POLICY

Jacobs Wellness Initiative. As a Jacobs student, you have access to several health and wellness resources. These include free 24/7 access to virtual mental health and well-being services through IU’s TimelyCare app, access to campus mental health services through Counseling and Psychological Services (CAPS), and access to wellness programs and coaching through our Office of Wellness and Arts Health Initiatives (OWAHI) among others. For a comprehensive list of resources, please visit our wellness page at www.music.indiana.edu/about/health-wellness. We encourage you to take advantage of these resources and to seek help when ever needed.

Health and Safety and COVID-19. IU will continue to follow recommended public health guidance. In recognition of all IU community members owe to each other, we expect every member of the IU community will adhere to all current policies and practices. For current information on that guidance see <https://www.iu.edu/covid/index.html>.

Academic Misconduct. Refer to the Code of Student Rights, Responsibilities and Conduct: <http://studentcode.iu.edu/>.

Counseling and Psychological Services. <http://healthcenter.indiana.edu/counseling/index.shtml>.

Students Needing Additional Financial or Other Assistance. The Student Advocates Office (SAO) can help students work through personal and academic problems as well as financial difficulties and concerns. SAO also assists students working through grade appeals and withdrawals from all classes. SAO also has emergency funds for IU students experiencing emergency financial crisis: <https://studentaffairs.indiana.edu/student-advocates/>.

Students missing class for a religious observance can find the officially approved accommodation form by going to the Vice Provost for Faculty and Academic Affairs webpage for religious accommodations: (Religious Observances: Teaching Resources: Faculty Resources: Office of the Vice Provost for Faculty & Academic Affairs: Indiana University Bloomington). The form must be submitted at least 2 weeks prior to the anticipated absence.

Accessibility and accommodation. Indiana University is dedicated to ensuring that students with disabilities (e.g., chronic health, neurodevelopmental, neurological, sensory, psychological & emotional, including mental health, etc.) have the support services and reasonable accommodations needed to provide equal access to academic programs. To request an accommodation, you must establish your eligibility by working with ability Services for Students (iubdss@indiana.edu or 812-855-7578). Additional information can be found at accessibility.iu.edu. Note that services are confidential, may take time to put into place, and are not retroactive; captions and alternate media for print materials may take three or more weeks to get produced. Please contact your campus office as soon as possible if accommodations are needed.

Bias incidence reporting. Bias-based incident reports can be made by students, faculty and staff. Any act of discrimination or harassment based on race, ethnicity, religious affiliation, gender, gender identity, sexual orientation or disability can be reported through any of the options: 1) fill out an online report at <https://reportincident.iu.edu/>; 2) call the Dean of Students Office at (812) 855-8187. Reports can be made anonymously at <https://reportincident.iu.edu>

Sexual misconduct and Title IX. As your instructor, one of my responsibilities is to create a positive learning environment for all students. IU policy prohibits sexual misconduct in any form, including sexual harassment, sexual assault, stalking, sexual exploitation, and dating and domestic violence. If you have experienced sexual misconduct, or know someone who has, the University can help. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with the IU Sexual Assault Crisis Services at (812) 855-5711, or contact a Confidential Victim Advocate at (812) 856-2469 or cva@indiana.edu. It is also important that you know that University policy requires me to share certain information brought to my attention about potential sexual misconduct, with the campus Deputy Sexual Misconduct & Title IX Coordinator or the University Sexual Misconduct & Title IX Coordinator. In that event, those individuals will work to ensure that appropriate measures are taken and resources are made available. Protecting student privacy is of utmost concern, and information will only be shared with those that need to know to ensure the University can respond and assist. I encourage you to visit <http://stopsexualviolence.iu.edu/index.html> to learn more.

<i>Psychology of Music – Course Schedule</i>			
Date	Topic	Reading	Assignment Due
<i>Introduction</i>			
1/8	Reading an article	Mikszta et al., <i>Typical components of a research article</i> (chapter 2) (pdf) Buonviri, <i>Effects of two approaches to rhythmic dictation</i> (pdf)	
1/10	Science and music	Sloboda, <i>Psychological structures in music</i> (chapter 6) (pdf) Sommer et al., <i>Effects of metrical dissonance</i> (pdf)	Discussion Post
1/17	Evolutionary purpose	Savage et al., <i>Music as a coevolved system for social bonding</i> (pdf) Handbook: Stevens & Byron, <i>Universals in music processing</i> (chapter 2)	Discussion Post
<i>The Physics/Psychophysics of Sound and Hearing</i>			
1/22	Acoustics	Download Sonic Visualiser: https://www.sonicvisualiser.org/download.html Hodges & Sebald, <i>Acoustical foundations of music</i> (chapter 5) (pdf)	Perception activity: Audiogram and dBs
1/24	The ear and hearing	See links on Canvas for descriptions of the ear	Perception activity: Explain acoustics
1/29	Psychoacoustics	Hodges & Sebald, <i>Psychoacoustics and the perception of music</i> (chapter 7) (pdf) Phillips et al., <i>Prevalence of noise-induced hearing loss</i> (pdf)	Perception activity: Analyze two sounds
<i>Music and Neuroscience</i>			
1/31	Structure and function	https://www.youtube.com/watch?v=vHrm4W9C0 https://www.hopkinsmedicine.org/health/conditions-and-diseases/anatomy-of-the-brain Hodges, <i>The child musician's brain</i> (pdf)	
2/5	Musical experience	Handbook: Dalla Bella, <i>Music and brain plasticity</i> (chapter 20) Hyde et al., <i>Musical training shapes structural brain</i> (pdf)	Project Topic
2/7	Musical experience	Tierney et al., <i>High school music classes enhance the neural processing of speech</i> (pdf) Herdener et al., <i>Jazz drummers recruit language-specific areas</i> (pdf)	
2/12	Music and language	Handbook: Jentschke, <i>The relationship between music and language</i> (chapter 21) Patel, <i>The OPERA hypothesis</i> (pdf)	Discussion Post
2/14	Embodied cognition	Wilson, <i>Six views of embodied cognition</i> (pdf) Iyer, <i>Embodied mind, situated cognition, and expressive microtiming in African-American music</i> (pdf)	
<i>The Cognition of Time</i>			
2/19	Dynamic attending	Handbook: Jones, <i>Musical time</i> (chapter 9) Drake et al., <i>The development of rhythmic attending in auditory sequences</i> (pdf)	Discussion Post
2/21	Movement and time	Levitin et al., <i>The psychology of music: Rhythm and movement</i> (pdf) Manning & Schutz, <i>Trained to keep a beat</i> (pdf)	
2/26	Groove	Janata et al., <i>Sensorimotor coupling in music and the psychology of the groove</i> (pdf) Leow et al., <i>Individual differences in beat perception affect gait responses</i> (pdf)	Discussion Post
<i>Music Emotion and Expression</i>			
2/28	Felt and perceived emotion	Handbook: Juslin, <i>Emotional reactions to music</i> (chapter 13) Hunter et al., <i>Misery loves company</i> (pdf)	

3/4	Preference	Handbook: Lamont & Greasley, <i>Musical preferences</i> (chapter 17) Schäfer, <i>The goals and effects of music listening</i> (pdf)	
3/6	Expressive performance	Handbook: Juslin & Lindström, <i>Emotion in music performance</i> (chapter 37) Tan et al., <i>Expressing emotion through vocal performance</i> (pdf)	Discussion Post
3/18	Peak experience	Handbook: Gabrielsson et al., <i>Peak experiences with music</i> (chapter 45) Marin & Bhattacharya, <i>Getting into the musical zone</i> (pdf)	
<i>Cognitive Components of Musical Ability and Skill Acquisition</i>			
3/20	Information processing	Ormrod, <i>Learning, cognition, and memory</i> (chapter 5) (pdf) Miksza, <i>Practice</i> (pdf)	Discussion Post
3/25	Memorizing	Handbook: Chaffin et al., <i>Performing from memory</i> (chapter 35) Mishra, <i>Effects of structure and serial position on memory</i> (pdf)	
3/27	Sight-reading	Handbook: Lehmann & Kopiez, <i>Sight reading</i> (chapter 34) Rosemann et al., <i>The art of sight-reading</i> (pdf)	
4/1	Expert performance	Ericsson & Harwell, <i>Deliberate practice and proposed limits</i> (pdf) Hambrick et al., <i>Beyond born vs. made: A new look at expertise</i> (pdf)	Discussion Post
4/3	Expert performance	Meinz & Hambrick, <i>Deliberate practice is necessary but not sufficient</i> (pdf)	
4/8	Eclipse		
4/10	Motor learning: Quality practice	Duke et al., <i>It's not how much; it's how</i> (pdf) Miksza, <i>Relationships among achievement goal motivation, impulsivity, and the music practice</i> (pdf)	Discussion Post
4/15	Motor learning: Repetition and rest	Carter & Grahn, <i>Optimizing music learning</i> (pdf) Duke et al., <i>Effects of early and late rest breaks during training on overnight memory consolidation</i> (pdf)	
4/17	Motor learning: Focus of attention	Mornell & Wulf, <i>Adopting an external focus of attention enhances musical performance</i> (pdf) Beilock et al., <i>When paying attention becomes counterproductive</i> (pdf)	
4/22	Motor learning: Verbalization and mental rehearsal	Timperman & Miksza, <i>Verbalization and musical memory in string players</i> (pdf) Iorio et al., <i>The effect of mental practice on music memorization</i> (pdf)	
4/24	Musician's Health	Handbook: Kenny & Ackerman, <i>Optimizing physical and psychological health in performing musicians</i> (chapter 39) Ryan, <i>Gender differences in children anxiety</i> (pdf)	Discussion Post
Finals' Week FINAL PROJECT Due Monday 5:00PM			

