

MUSIC 3343

Music, Body, and Brain

Course Description

Music moves and touches us in many ways; there seems to be a quintessential relation between music, our body, and our brain. Yet answers to the question of what exactly this relationship is are not always easy to come by. This course offers an introduction to the complex relationship that involves sensory (auditory, kinesthetic, and visual), motor, and cognitive components. It offers an orientation to help students understand the various experiences of this music-body relationship related to sensation, perception, creation/production, interpretation, and communication. As the notions of both 'music' and 'body' have many meanings, the course also explores how their relationship is influenced by various cognitive, aesthetic, cultural, social, and historical factors.

This course introduces an overview of some central aspects of the music-body-brain relationship, presents relevant research illustrating how both culture and physiology shape this interaction, and critically reviews the information and misinformation that have become available in recent decades. Additional in-class demonstrations and experiments will give students a better understanding of some of the research methods applied in this field, and through various case studies they will learn how interdisciplinary approaches help us understand the multiple ways in which culturally shaped music-making and the human body interact.

GE Visual and Performing Arts

Goals:

Students evaluate significant works of art in order to develop capacities for aesthetic and historical response and judgment; interpretation and evaluation; critical listening, reading, seeing, thinking, and writing; and experiencing the arts and reflecting on that experience.

Expected Learning Outcomes:

1. Students analyze, appreciate, and interpret significant works of art.
2. Students engage in informed observation and/or active participation in a discipline within the visual, spatial, and performing arts.

The overall goal of this course is to develop students' understanding of the basic connections between music, body, and brain. They will learn how both the physical structure of musical sounds and our culturally conditioned perception influence how music interacts with our bodies. They will learn to appreciate the need for, and the

benefits of, applying multi-disciplinary perspectives in the exploration of this multifaceted relationship. Students also learn about a variety of theoretical and methodological approaches suitable for exploring this topic. The course will help students bring together and apply knowledge from ethnomusicology, neuroscience, and psychology to support a critical evaluation of the considerable amount of information on the music-body relationship made available by current media.

In order to meet these goals, students will listen to a wide variety of types of music: traditional genres from different cultures around the world as well as selected types of classical and popular music. They will learn to focus on particular structural elements – especially rhythm, tempo, and meter; melodic contour and shape; emotional implications of song texts; texture; dynamics; timbre, harmonics and overtones – and on the interaction of these elements in particular pieces of music, which exemplify genres. They will learn how cultural contexts and performance contexts affect the way music is perceived and the way the body reacts to music. By encouraging students to observe, analyze, discuss, and evaluate the ways different types of music affect our bodies and how the body shapes our experience of music, this course will satisfy the expected learning outcomes of the Visual and Performing Arts category of the GE.

Required Texts

Reading material for this course consists of excerpts from three books, by Levitin, Mithen, and Sacks (available for purchase in paperback format), class readings prepared by the lecturer, and occasional web site articles (listed in the weekly schedule).

D. J. Levitin (2006): *This Is Your Brain On Music: the Science of a Human Obsession*. Paperback. New York: Plume, Penguin USA. ISBN 978-0-452-28852-2

S. Mithen (2007): *The Singing Neanderthals: the Origins of Music, Language, Mind, and Body*. Paperback. Cambridge: Harvard University Press. ISBN 978-0674025592

O. Sacks (2007) *Musicophilia: Tales of Music and the Brain*. Paperback. New York: Vintage Books. ISBN 978-1400033539 (Revised & Expanded: 2008)

Lecturer-designed readings, available on the Carmen class web site. These will typically be 3- or 4-page typescripts.

Lecture notes are accessible on the Carmen class web site.

Course Requirements

Success in the course depends on active participation; there will be in-class assignments, activities (listening, analysis, and evaluation of music and sound examples), and demonstrations. Students will be awarded grades earned only by completing the assignments listed below. For the required research paper students may choose between two varieties of topics, either an analysis based on relevant readings of the student's choice, or an analytical observation of a musical performance in which the student applies the concepts learned in class. The paper is expected to be 8-10 pages long, typed, double-spaced using a scholarly-appropriate 12-point font, presented in a prose essay format, and accompanied with relevant references to cited sources. Students will submit a two-page proposal in Week 6, which summarizes the topic, the proposed approach, and principal references. The instructor will return the proposals, with feedback, in Week 8. (The proposal does not receive a letter grade but is a course requirement.) Students may follow the style manuals recommended by their departments or majors.

15%	Midterm Test I	15%	Midterm Test II
30%	Final Test	20%	Research Paper (and Proposal)
20%	Class Participation/In-Class Assignments		

Please note that all assignments must be completed in order to receive a passing grade for the course.

GRADING:	100 – 94 A	83 – 80 B-	69 – 67 D+
	93 – 90 A-	79 – 77 C+	66 – 64 D
	89 – 87 B+	76 – 74 C	63 and less E
	86 – 84 B	73 – 70 C-	

Attendance Policy

Students are expected to attend class regularly. Students who miss class will not be able to make up in-class work; no special accommodations will be made for students who do not attend class. Only those students who contact the instructor **before** a scheduled exam **and** who provide an acceptable excuse may be allowed to make up a missed exam.

Disability Policy

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 of their needs. The

Office for Disability Services is located in 150 Pomerene Hall,
1760 Neil Avenue; telephone 292-3307, TDD 292-0901;
<http://www.ods.ohio-state.edu/>.

Plagiarism and Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/pdfs/csc_12-31-07.pdf.

Weekly Schedule

Week 1) Course introduction

Everybody’s music – process and activity
Music basics, features of sound

Reading: Will: Class Reading Week 1
Levitin: Ch.1, pp.13-55

Week 2) Hearing and listening

Sound categories (animate vs inanimate, musical vs non-musical, vocal vs instrumental)
Modes of listening and listening experience

Music examples: Western classical and popular music, music from China, Bali, and West Africa

Reading: Levitin: Ch.5, pp.133-67

Week 3) How do we (and other people) talk about music?

Metaphors and the body
Music that touches and music that moves

Music examples: Western classical, Central African, Indonesian music

Reading: Will: Class Reading Week 3
Sacks: Ch. 4, pp.32-43

Week 4) Music & body movements

Rhythms in the body – rhythms of the body
(Locomotion, periodic movement, music coordinating movements, movements coordinating music, synchronization)

Music examples: Work songs, dance music, march music

Reading: Sacks: Ch. 19, pp.254-269
Levitin: Ch.2, pp.57-82

Second meeting week 4: Midterm I

Week 5) Music & heart

Music examples: New Age, film music

Reading: Will: Class Reading Week 5

Week 6) Music & breathing

How music affects breathing
Music and breathing in cross-cultural perspective

Music examples: Vocal and flute music from Europe, Japan, Australia, India, Middle East, and Africa

Reading: Will: Class Reading Week 6

Second meeting week 6: Research Proposal due

Week 7) Music & brainwaves

Reading: <http://www.mindpowermp3.com/Frequencies-music-and-transformation-How-our-audios-work.html>

Will: Class Reading Week 7

Week 8) Music & other brain activities and cognitive processes

Mozart effect?

Music examples: mainly Mozart

Reading: Sacks: Ch. 7, pp.93-104
Levitin, Ch.7, pp.193-221

Second meeting week 8: Midterm II; instructor returns Research Proposals

Week 9) Music & memory

How music affects memory
'Musical' memory (memory for music)

Music examples: Australian, Balkan, Iranian, European symphonic music

Reading: Will: Class Reading Week 9
Sacks: Ch. 15, pp. 201-231

Week 10) Music & affect (emotions & mood)

Music examples: music of S.E. Asia, Italy, Brazil, North America; lullaby

Reading: Sacks: Ch. 26, pp.333-338
Levitin, Ch.6, pp.169-192

Week 11) Music & therapy

Melodic intonation therapy
Entrainment & Parkinson's (Thauth project)

Reading: Sacks: Ch. 16, pp. 232-242;
<http://news.stanford.edu/pr/2006/pr-brainwave-053106.html>

Week 12) Music & animals

Do animals have music? Are animals affected by music?

'Music' examples: whales, birds, amphibians, primates

Reading: Mithen: Ch.8, pp.105-121
Will: Class Reading Week 12

Second meeting week 12: Research Paper due

Week 13) How did humans come to their music?

Music examples: (reconstructed) pre-historic instruments

Reading: Mithen: Ch.17, p.266-278
Will: Class Reading Week 13

Week 14) Music & action: integrative sensory-motor view of music and the body

Reading: Will: Class Reading Week 14

Finals period: Final exam