

PSY447 Psychology of Music

Fall 2010 Syllabus

Instructor: Dr. Peter Q. Pfordresher **Office:** Park 355
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Office hours: By appointment (also I will remain after class each day to discuss questions)

Meeting times/place: Tuesday and Thursday 12:00 – 1:20 PM, 213 Norton

Required readings:

Tan, S.-L., Pfordresher, P. Q., & Harre, R. (2010) *Psychology of Music: From Sound to Significance*. London: Routledge and Psychology Press. [textbook]

Additional readings posted on UB learns.

Important dates:

Exam 1: Thursday, September 30

Exam 2: Thursday, November 4

Exam 3: Thursday, December 2 *

FINAL PAPER Due by **midnight** on Thursday **December 16th**

* **NOTE:** Exam 3 is not a final exam, in that it is not cumulative.

Assessment

Your performance in the course will be calculated as follows:

Exams (2 highest)	40% each	(80% total)
Final paper	20%	(20% total)

Although three exams will be given, I will only count the two highest exam grades. As a result of this policy, however, **I will not grant any make-up exams**. If you miss an exam for any reason (including funerals, serious illness, car accidents, and broken alarm clocks) that exam will constitute your “dropped” exam grade.

None of the exams are “cumulative”; thus **there is no final exam**. Material on exams will focus on lectures, as well as reading assignment. Unless I announce otherwise, you will be responsible for material assigned for reading that is not covered in lectures. Each exam will consist primarily of *short answer* questions, along with some fill-in-the-blank and matching questions. *During exams all cellular phones, pagers, etc., should be turned OFF. Students who answer or even look at cell phones during an exam will fail that exam.*

The final paper (minimum 5, maximum 10 pages, not including references and figures) will consist either of an *original empirical study* (including a review of at least 5 journal articles) or a *critical review* of some topic (including a review of at least 20 journal articles). You will turn in this paper using “safeassign” on UB-learns.

I may also take some time out of the beginning of class to give you a non-graded quiz for the purpose of understanding how well the course material is understood and remembered. These quizzes will not be used to determine your final grade but will help you better understand how well you know the material.

Course Description

This is an upper-level undergraduate class that considers the psychological foundations of musical behavior. Readings will include both textbook-style source, common to undergraduate courses, and original empirical journal articles, common to graduate level

course. The primary format for this class will be lecture, although certain days will be devoted to a discussion of original empirical articles (see schedule). The orientation will primarily be cognitive, concerning how the mind represents musical structure and how these representations guide the perception and production of music. We will also consider the nature of musical skill and development, and the relationship between music and the brain. Some (but less) time will be spent on clinical and social aspects of music.

Because this class concerns musical structure, and because musical structure in our culture is often represented in written form, *it is recommended that you be able to read music*. If you don't know how to read music, here are some handy on-line tutorials:

Reading music:

<http://www.teoria.com/tutorials/reading/03-values.htm>

http://www.hoerl.com/Music/music2_notes.html

Interactive demo on musical pitch as represented on the piano

<http://www.music.vt.edu/musicdictionary/appendix/pitch/pitch.html>

It is also an advantage to have some experience with music theory. Much of the material in this course will concern musical scales, tonal structure, and meter...all of which you learn about in music theory.

Attendance and classroom etiquette

Attendance in lectures is technically not mandatory, but is strongly suggested.

I promise to treat each of you with respect in the classroom, and I ask you to do the same for me and your fellow classmates. I will expect that any pagers or mobile (cellular) phones will be turned off during the class, and that students will not read or study other material during class. Most important, please respect the desire of your fellow classmates to ask questions even when you do not feel the urge to do so.

TENTATIVE lecture schedule (following page)

Although I do intend to maintain this ordering of topics we may get behind OR AHEAD OF schedule as the semester commences. Alterations to this schedule and any modifications to reading assignments will be announced in lectures. Numbers under "reading" refer to chapters in the textbook, "UB" indicates reading posted on UB-learns.

<u>Week</u>	<u>Date</u>	<u>Topic</u>	<u>Reading</u>
1	8/31	Syllabus, Origins of music	UB
	9/2	Sound and the ear	2, 3
2	9/7	The neuroscience of music	4
	9/9	(same)	
3	9/14	<i>Empirical paper discussion #1</i>	UB
	9/16	Melody and pitch	5
4	9/21	(same)	
	9/23	<i>Empirical paper discussion #2</i>	UB
5	9/28	Catch-up, review session (if time permits)	
	9/30	Exam #1	
6	10/5	Rhythm	6
	10/7	(same)	
7	10/12	<i>Empirical paper discussion #3</i>	UB
	10/14	Emotion	14
8	10/19	Development	8
	10/21	(same)	
9	10/26	<i>Empirical paper discussion #4</i>	UB
	10/28	Practice	10
10	11/2	Catch-up, review session (if time permits)	
	11/4	Exam #2	
11	11/9	Performance	11
	11/11	(same)	
12	11/16	<i>Empirical paper discussion #5</i>	UB
	11/18	Social & Cross-cultural perspectives	12, 15
13	11/23	Facilitating effects of music	UB
	11/25	NO CLASS: Thanksgiving	
14	11/30	<i>Empirical paper discussion #6 & review</i>	UB
	12/2	Exam #3	
15	12/7	Discuss Exams and final papers	
	12/9	NO CLASS: Work on projects	

List of empirical papers for discussion

Empirical reading #1 (9/14)

Patel, A. D., Gibson, E., Ratner, J., Besson, M., & Holcomb, P. J. (1998). Processing syntactic relations in language and music: An event-related potential study. *Journal of Cognitive Neuroscience*, *10*, 717-733.

Empirical reading #2 (9/23)

Krumhansl, C. L., & Shepard, R. (1979). Quantification of the hierarchy of tonal functions within a diatonic context. *Journal of Experimental Psychology: Human Perception and Performance*, *5*, 579-594.

Empirical reading #3 (10/12)

Jones, M. R., Moynihan, H., MacKenzie, N., & Puente, J. (2002). Temporal aspects of stimulus-driven attending in dynamic arrays. *Psychological Science*, *13*, 317-319.

Empirical reading #4 (10/26)

Hannon, E. E., & Trehub, S. E. (2005). Metrical categories in infancy and adulthood. *Psychological Science*, *16*, 48-55.

Empirical reading #5 (11/16)

Dalla Bella, S., Giguere, J.-F., & Peretz, I. (2007). Singing proficiency in the general population. *Journal of the Acoustical Society of America*, *121*, 1182-1189.

Empirical reading #6 (11/23)

Rauscher, F. H., Shaw, G. L., & Ky, K. K. (1993). Music and spatial task performance. *Nature*, *365*, 611.

Paper Assignment

Due date: by **midnight** on Thursday **December 16th**

(This means you have until late Thursday night to complete the assignment.) Assignments turned in late will have points reduced.

General Description.

Submit papers online through “safeassign” in UB-learns. You can find a link in the “final paper” menu.

The length of paper should be 5-15 pages NOT INCLUDING a title page (which should be included), and any references or other material such as figures and tables. Font should be 12-point Times New Roman, and margins should be 1 inch on all sides. Lines should be double spaced, without additional spaces between paragraphs, and left justified. NUMBER ALL PAGES. Deviations from assigned format will result in lost points. Your paper should include your name, the date, a working title, and a reference section including (minimally) the reference you choose (see below).

There are two types of assignments you can pursue, which are described below. The core of each type of assignment is that *you come up with a research question* that gets answered by the type of paper. You need to come up with the question, so start thinking about it now. Use the topics we have talked about in class.

Version #1: Empirical paper

The goal here is to *collect data* from your peers. Given that this is a classroom exercise, and not research, you can do this without going through the IRB, provided that your research is of minimal risk and does not involve coercion of your friends. I am hoping that many of you take on this option – it will be particularly good training for persons interested in graduate school.

Your data collection can be simple: you can opt for a correlational study or a simple experimental study (or quasi-experimental study) with just two groups (experimental and control). You don't need to use fancy equipment. If you run a perceptual study you could play music from a CD player, on an instrument, or by simple music software (I put a link on the UB learns site – the demo version is free). If you run a performance study and don't want to measure the physical performance you could do something like have a ‘neutral’ party rate the quality of the performance, count how many errors the performer makes, etc. (As a general note, perceptual studies are easier....)

Presentation of data is important here. If you run a correlational study you will need to show your data using a scatterplot. If you run an experimental study you will need to show your group means (and any other relevant statistics) in a figure (e.g., bar graph) or table. Excel is an easily accessible tool for doing any of this and is available at any computer lab. I will also want you to report statistics, which typically would either be a correlation coefficient or a t-test (for experimental studies). These can also be computed in excel; I'll hold a mini-workshop later in the class to help out in this. Though I am asking you to report statistics I am most interested in your ability to *present and interpret data*. This in the end is the most critical part of an empirical study.

Your paper should include the basic components of an APA-style journal article, like the ones we have discussed in class. This typically means

Introduction
Method
Results
Discussion

Followed by references. For your introduction, as stated in the syllabus, be sure to include references to *at least five* journal articles (not your course notes, not your textbook, not web sites). Use these articles as motivation for your study. You do not need to supply full summaries of these articles but I should be sure that you read them when I review your paper.

What I will take into account when grading version #1

Originality of hypothesis
Link to previous literature
Care taken in constructing the design of the study (are there confounds?)
Clear presentation of data
Thoughtful interpretation of data that links back to previous literature

Version #2: Critical review paper

This option does not require data collection but it does require that you generate a clearly stated hypothesis and that you read a *lot* more papers. The main difference is that in option #1 you are going to answer a question using new data and in option #2 you answer the question using what *other* people have already found.

The important point for this option is that you organize a literature review around the type of answer different studies suggest for the question you propose. I do not want to read a list of paragraph summaries of papers – doing this will give you a low grade.

Note that for this option you are supposed to read *at least twenty* journal articles (not your course notes, not your textbook, not web sites). To do this you can use the reference list I posted on UB-learns but you should also undertake a literature review of important journals such as *Music Perception* (see list below). These should appear in your reference section. As with option #1 you should not fully summarize each paper (doing so may require many more pages) but I should be certain that you did read these papers.

What I will take into account when grading version #2

Originality of hypothesis
Thoroughness of literature review (did the writer miss any “big” papers?)
Clarity with which past literature is connected to the hypothesis in question.
Critical evaluation of the quality of existing literature.
Ability to synthesize existing literature and come to a conclusion.

Appendix: List of (some) major journals

(NOTE: a good starting point for any paper is to use the reference section of your textbook.)

Music Perception
Psychology of Music

Musicae Scientiae
Psychomusicology
Empirical Musicology Review
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning memory and Cognition
Attention, Perception, & Psychophysics (formerly *Perception & psychophysics*)
Journal of the Acoustical Society of America
Psychological Review
Psychological Bulletin
Journal of Cognitive Neuroscience
NeuroImage
Psychophysiology
Science
Nature
Nature Neuroscience
Current Biology
Neuron