### **PSY 348 Music and the Brain**

University of Oregon Syllabus, Winter 2013

**Instructor: Jenny Mendoza, M.S.** Classroom: Esslinger 105

Straub Hall 498 Time: MW 10:00 AM-11:20 AM

jmendoz4@uoregon.edu

Office Hours: Mondays 11:30 AM-1:30 PM, and by appointment (schedule via email)

Course website: http://blackboard.uoregon.edu

Check this site *regularly* for important information regarding this course!

## **Course description:**

What is music? How do we describe music in terms of tonality, harmony, melody, and rhythm? How do these aspects of music relate to acoustics, auditory neurobiology, perception, and cognitive neuroscience? How do we analyze sound?

In this course, we will explore these and other questions about music from the perspective of several different domains, including cognitive psychology, physics, mathematics, and neurobiology. In all of these areas, we use music and our perceptual experience of music as a unifying framework.

There are no prerequisites. This course assumes no previous knowledge of music theory or neuroscience but will introduce basic concepts and methods relevant to these fields. This course satisfies the University of Oregon Science Group Requirement.

Required Text: This is Your Brain on Music: The Science of a Human Obsession, Daniel J. Levitin

### **Expectations & Responsibility:**

This is an upper division science course. This course will be difficult. The material is advanced and the pace will be fast. The exams will be very challenging. Nevertheless, I expect that any student who does the readings, comes to class, and actively participates in class should be able to master the material and succeed in the course.

It is your responsibility as a student in this course to ask questions and clarify any points in this syllabus that you find confusing. "I didn't know that..." or "I wasn't sure about..." will not excuse you from completing any of the requirements for this course.

# **Course Requirements:**

According to University of Oregon principles governing credit and contact hours, each credit is equivalent to 30 hours of work. Your 4 credits for this course are equivalent to 120 hours of work over 10 weeks, which is 12 hours per week. You will spend ~3 hours in class each week and should expect to spend up to 9 hours <u>each week</u> engaged in reading, studying, and completing assignments outside of class.

Participation	10% of final grade
<b>Problem Sets</b>	20% of final grade
Midterm Exam	20% of final grade
Term Paper	25% of final grade
Final Exam	25% of final grade

See Course Calendar posted on Blackboard for readings, exam dates, and assignment due dates.

### **Participation** (10% of final grade)

**Participation is based on attendance and active participation**. I will take attendance on random, unspecified days. In addition, on certain, unspecified days, you will be asked to reply to questions about the lecture by writing responses on response cards, which will be collected at the end of class. Your responses will be evaluated, and they should reflect that you have been actively engaged in the course material. The response cards will also serve as proof that you attended class that day. <u>In addition, I *highly* encourage you to ask questions, raise issues,</u> and connect ideas during class! I will keep track of people who **actively** participate in class.

# **Problem Sets** (20% of final grade -12 of them = 1.67% each)

You must do the assigned reading *before* each lecture. The day before each lecture, after you've completed the reading, you will need to log onto Blackboard and complete the online Problem Set. **These are required; they are due by 11:59 p.m. the night before each lecture.** 

Late problem sets will not be accepted, and there are no make-ups. I will <u>drop your 2 lowest-scoring Problem Sets</u>, so don't worry if you miss one or do poorly on one.

The objectives of the Problem Sets are fourfold:

- 1. Lots of relatively easy points (if you've done the reading) distributed daily. This takes some pressure off the exams, in case you have a bad exam day.
- 2. Motivates you to do the reading, show up to class, and pay attention.
- 3. Review concepts and material to help prepare for the exams.
- 4. Constant feedback to me about how much you understand, and what concepts need more emphasis during class.

### Exams (Midterm = 20% of final grade; Final = 25% of final grade)

Both exams will be in-class, open-book, open-note exams. You may use your laptop/tablet/cell phone to access your notes. You may also use the Internet. The only source of information you may NOT use is each other (or any other person).

A word of advice about the exams: even though they are open-book exams, you should still study to prepare for the exam. The exams will test your understanding of concepts, rather than memorization. You will not have time during the exams to read and understand all the material for the first time. The more familiar you are with the material, the easier and faster it will be to refer to it during the exams.

Both exams will be cumulative, although the Final exam will focus more on the material from the second half of the course than from the first half.

# **Term Paper** (25% of final grade)

You will write a term paper on a topic of your choosing, related to music and the brain. See Term Paper Guidelines posted on Blackboard for more detailed information about this assignment.

The purpose of this assignment is trifold:

- 1. It will help familiarize you with reading peer-reviewed, empirical journal articles reporting empirical research about music, psychology, and the brain.
- 2. It will provide you with the opportunity to learn about the format of academic/scientific writing and to practice writing in this manner.
- 3. It will allow you to explore more fully a topic that is intrinsically interesting to you, possibly enabling you to learn about a topic beyond what we cover during this course.

### Extra Credit (up to 2% EC):

1% EC = 1 SONA credit (1 hour participation in studies) –OR– 1 article + RER

# **Option 1: Participate in research** – up to 2 credits/hours

You may participate in real research experiments through the Psychology and Linguistics Departments' Human Subject Pool. Researchers conduct many experiments on varied topics (e.g., attention, memory). Through participating, you will gain an understanding of how research is conducted. Sign up to participate here: <a href="http://uopsych.sona-systems.com">http://uopsych.sona-systems.com</a>. You can request a username and password. Once logged in, you will find a list of studies and their locations that are available to you. After participating in a study, you will be electronically credited for the time allotted for that study. For more information, contact Bill Schumacher, the Human Subjects Coordinator: <a href="https://hospych.sona-systems.com">hscoord@uoregon.edu</a>

Note: The Prescreen does not count towards your extra credit hours, but you must complete it in order to participate in other studies.

### **Option 2: Read an article + RER** – up to 2 articles

You may also fulfill all or part of the research participation requirement by reading research articles. You must email the professor to obtain these articles! Each article you read will count as 1 credit and take about one hour to read thoroughly. By reading about empirical research, you will gain knowledge of the methodology used in psychology studies. To demonstrate your understanding of the article, you will complete an RER on Blackboard.

\*\*In order to receive Extra Credit for research participation, all SONA credits and RERs MUST be completed by **Tuesday, March 12, 2013 by 11:59pm.** 

### **Course Policies:**

# Grading

Letter grades are determined as follows:

A = 90-102%

B = 80-89.99%

C = 70-79.99%

D = 60-69.99%

F = 0-59.99%

In addition, a + or - will be appended to letter grades for scores in the upper and lower third of each grade range, respectively.

#### **Excused Absences**

Absences will be considered "excused" at the digression of the instruction.

• <u>Planned Absences:</u> If you know you will need to miss class, please discuss this with the instructor *in advance* of your absence! Planned absences include the following:

- o Planned school-related events (e.g. traveling athlete, course field trip)
- o Planned, significant personal event (e.g. sister's wedding, job interview).
- <u>Unplanned Absences</u>: If something unexpected occurs, please let the instructor know ASAP so we can decide together how best to proceed. If it is medical in nature, please get a doctor's note, if possible. Unplanned absences include the following:
  - o Significant, unexpected event (e.g. torn ACL, family funeral)
  - o Minor, unexpected event (e.g. flu, cold) health related, only!
    - Please get a doctor's note, if possible
    - "I slept through my alarm clock" is NOT an excusable unplanned absence

Absences will only be considered "excused" if you talk with the instructor in advance of or as soon as possible after missing class. Please do no wait until the end of the course to discuss your situation with the instruction!

### **Late Work Policy**

<u>Late work will not be accepted.</u> The only exception is for students who cannot turn in an assignment due to an excused absence (see above for policy about Excused Absences).

# Make-Up Exams

Make-up exams will only be offered to students who have excused absences on the scheduled day of the exam (see above for policy about Excused Absences).

#### **Academic Honesty**

All work submitted in this course must be your own. You may be required to submit writing assignments to SafeAssign, which is a software tool designed to help students avoid plagiarism and improper citation. By enrolling in this course you grant the instructor permission to submit your work to SafeAssign.

Plagiarism is taken very seriously and is grounds for failure or expulsion. You are responsible for understanding what constitutes plagiarism and how to avoid it in your work. Excellent guides on plagiarism can be found at <a href="http://libweb.uoregon.edu/guides/plagiarism/students/">http://libweb.uoregon.edu/guides/plagiarism/students/</a> and <a href="http://www.plagiarism.org">http://libweb.uoregon.edu/guides/plagiarism/students/</a> and <a href="http://www.plagiarism.org">http://www.plagiarism.org</a>.

If your responses on assignments are suspected of plagiarism, or if the instructor has any reason to be concerned about your conduct during an exam, you may be asked to move seats, have your test confiscated, and/or be given an "F" grade on the assignment/exam.

If you have questions regarding any aspect of these policies, please consult with the instructor before you complete any relevant requirements for this course.

# **Student Code of Conduct**

You will be expected to follow the Student Code of Conduct at all times (i.e. during class, during office hours, and in all correspondences). Violations to this code will be reported and handled in the appropriate manner. More information about the Student Code of Conduct can be found here: <a href="http://uodos.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx">http://uodos.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx</a>

### **Students with Disabilities**

If you have a documented disability, and you anticipate needing accommodations in this course, please meet with the instructor as soon as possible. Also, please request that Hillary Gerdes (hgerdes@oregon.uoregon.edu, tel. 346-3211, TTY 346-1083), Senior Director of the Accessible Education Center, send a letter to the instructor verifying your disability.

## Students for whom English is a Second Language

If you are a non-native English speaker and think you may have trouble in this course due of language difficulties, please see the instructor as soon as possible.