Musicophilia: Your Brain in Today’s World of Music  
Physiology 88S, Spring 2019

Location: MS 5148 (12pm), MS3915A (2pm)  
Time: Mondays 12pm & 2 pm

Student Facilitator: Abraham Chorbajian  
Faculty Mentor: Dr. Alan Grinnell

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Office Hours: By Appointment

Course Materials
- The main access to all links and necessary materials will be on our CCLE course site
- Textbook: Sacks, Oliver. *Musicophilia: Tales of Music and the Brain*  
  ISBN-13: 978-1400033539. PDF versions can also be found online.
- Spotify, Apple Music, YouTube, or any other music streaming platform account is necessary for the class for listening assignments

Course Description
For nearly everyone, music is an important part of their lives whether it is on a social, personal, or musical level. Whether we listen to music to relax, exercise, or study or we are actively playing an instrument, we all experience music in our lives. However, most of us have never considered just how music is influencing our mental processes and why we feel the ways we do when we listen to music.

In this class, we will be exploring the relationship between music and the brain and reflecting on how this relationship affects the way we perceive today’s world of music, including analysis of current music and examination of the science behind how our brain interprets and responds to music. In the first part of the class, we will examine the processing of music in the brain and compare the brain activity of musicians when they are playing or composing music compared to the brain activity of non-musicians. We then discuss how music is created in today’s music scene which includes the music industry, music marketing, and film scoring. We will finally look at how music can be used as a therapeutic tool in treating memory-related neurogenerative diseases such as Parkinson’s and Alzheimer’s and other neurological sensational abnormalities.

Course Objectives
This is a discussion-based class. Please come to class prepared to ask questions and to talk about material with the class. Students who complete this course successfully will be able to:
- Gain an understanding of activity in the brain when one listens, plays, or creates music
- Understand the current state of the music scene and how it affects musical preferences
- Apply course content to their own surroundings when it comes to music through discussion and reflection
- Understand how music can be used as a therapeutic tool both medically and creatively
How to Succeed in this Course

Grading
This is a 1-unit Pass/No Pass course. Students are expected to engage in one hour of study outside of class per week. In order to receive a Passing grade, students must have 70% or over at the end of the course. Your grade will be based on participation, assignments, and the final paper.

Participation—20%
Attendance is very important for this seminar as we will be actively discussing in each session. Students should come prepared to class ready to discuss and be open to engage in the discussion which will include discussion amongst the class as well as in smaller groups. You will be allowed 1 unexcused absence and no more than 2 absences total. If you must miss class, please contact me via email at least a day in advance.

Assignments—40%
Each weekly class meetings will be centered around a discussion of a topic introduced by required readings, videos to watch, and listening assignments to complete before coming to class. The listening/video assignments will include having to listen to designated playlists based on a certain topic. These assignments will be evaluated based on effort as well as how they are integrated in the class discussion.

In addition, after every class session, students are responsible for posting a small paragraph (5 to 7 sentences) reflection on the topic discussed in each class and how it reflects to experiences in their life. This will be due by the Wednesday 11:59pm after every session so that the instructor can have enough time to properly reflect and apply from the feedback.

Final Assessment—40%
Students will have the opportunity to pick a topic of their choosing that pertains to any of the topics discussed in the course. The final will be to write a minimum four-page double-spaced paper around the chosen topic using in-class & outside sources. If you have any ideas for the final using a different medium (song, video, etc.), discuss this with the instructor for approval.

Class Policies

Plagiarism Policy
Please do not plagiarize any of the work we complete in class. Plagiarism is defined as presenting another’s words or ideas as if they were one’s own. While you may think that this is a viable choice, this will only be more work for both the instructor and yourself. If you feel overwhelmed by the work in this class, please let me know so we can work something out, so you can gain the most out of this class without having to consider options that may lead to compromising academic integrity.

Laptop Policy
For this class, I do allow laptops during class. However, at times where we are in a discussion, please be respectful and mindful to the learning of the students around you as use of background activities can distract your learning as well as that of others.
Course Schedule

Week 1—Introduction to Music and the Brain
- What defines music?
Pre-Class Assignment(s): None

Week 2—Musician vs. Non-Musician brain
- What effects does learning an instrument in youth have on brain development?
- What does the way musicians compose say about creativity and the musician’s brain?
Pre-Class Assignment(s):
- The Effects of Musical Training on Structural Brain Development (4 pages)
- Playlist #1: Production introduction (42 minutes)

Week 3—Neuroscience of Jazz Improvisation & Hip Hop Freestyle
- Discussion of Charles Limb’s research and TED Talk
- What is happening in the brains of freestylers and jazz musicians?
Pre-Class Assignment(s):
- One of two papers by Charles Limb (6 pages)
- Playlist #2: Jazz Improvisation and Hip-Hop Freestyle (36 minutes)
- Charles Limb: Your Brain on Improv (13 minutes)
  https://www.youtube.com/watch?v=U4k5JFmahVY
  (0:16-9:05, 11:51-16:19)

Week 4—Why do songs get stuck in your head?
- How does the brain process sound?
- What is the “Earworm” phenomenon?
Pre-Class Assignment(s):
- Sacks: Chapter 5, “Brainworms, Sticky Music, and Catchy Tunes” (p. 44-53)
- Playlist #3: Create your own playlist with your favorite songs (minimum of 7 songs)

Week 5—Guest Speaker Rogét Chahayed
- Q&A about his life as a record producer and songwriter
- How is music created in the music industry from the perspective of a music producer?
Pre-Class Assignment(s):
- Playlist #4: Curated by Rogét Chahayed (~45 minutes)

Week 6—Film scoring and the emotional impact of music
- How music inspires an emotional response in film
- How does the score of a film affect the experience of watching a film
Pre-Class Assignment(s):
- “How do film-makers manipulate our emotions with music?” by Helen Stewart (2 pages)
- “Music and emotion—a composer’s perspective” by Joel Douek (3 pages)
- Video Assignment: Watching your favorite film and concentrating on its score
**Week 7— Synesthesia**
- How sensory sensations create associations
- How artists channel this sensationalism in their music

*Pre-Class Assignment(s):*
- Sacks: excerpts from Chapter 14 “The Key of Clear Green Synesthesia and Music” (p. 177-197)
- Playlist #5: Synesthesia in Modern Music (41 minutes)

**Week 8— Music as a Therapeutic Tool**
- Introduction to music therapy and efforts in this field
- Presentation by Sandra Cheah, Neurologic Music Therapist at UCLA Mattel Children’s Hospital
- Discuss final assessment

*Pre-Class Assignment(s):*
- Sacks: Chapter 29 “Music and Identity: Dementia and Music Therapy” (p. 371-385)
- Playlist #6: Create a Playlist for a Loved One (minimum 7 songs)

**Week 9— Memorial Day Observed; No Session Held**
- Throughout this week, office hours or essay workshop session will be held where students will be able to work on their essays
- Additionally, I will try to organize a talk with other music therapy organizations around LA

**Week 10— Oddities in Music and the Brain & Closing Remarks**
- Phantom limbs and how neural plasticity work
- Additional topics (depending on class interests that have not been covered)
- Closing remarks

*Pre-Class Assignment(s):*
- Sacks: Chapter 20 “Kinetic Melody: Parkinson’s Disease and Music Therapy” (p. 270-283) Chapter 21 “Phantom Fingers: The Case of the One-Armed Pianist” (p. 284-288)
- Final assessment about any topic discussed is due at final seminar (printed or email in PDF form)

*This syllabus is always subject to change during the quarter and if any changes are made the students will be notified.*
Student Resources for Support and Learning

Providing feedback to me: I encourage your feedback at any time throughout the quarter about things that are helping you learn or things that aren’t helping. Please communicate with me if there are ways that I can improve the course to better support student learning.

Personal Problems: I understand that sometimes life makes it difficult to focus on schoolwork. If you are having a personal problem that affects your participation in this course, please talk to me to create a plan. Please do not wait until the end of the quarter to share any challenges that have negatively impacted your engagement and academic performance. The sooner we meet, the more options we will have available to discuss to support your overall academic success. If you are not comfortable speaking with me directly, please utilize the other student resources provided below in order to understand how to best approach success in this course given your personal needs as soon as possible.

Academic Accommodations Based on a Disability: Students needing academic accommodations based on a disability should contact the Center for Accessible Education (CAE) at (310)825-1501 or in person at Murphy Hall A255. When possible, students should contact the CAE within the first two weeks of the term as reasonable notice is needed to coordinate accommodations. For more information visit www.cae.ucla.edu.

Campus Resources and Support Services around UCLA Available to Students:

- **Academic Advancement Program:** AAP advocates and facilitates the access, academic success, and graduation of students who have been historically underrepresented in higher education; informs and prepares students for graduate and professional schools; and develops the academic, scientific, political, economic, and community leadership necessary to transform society. Learn more at [http://www.aap.ucla.edu/](http://www.aap.ucla.edu/)

- **Academics in the Commons at Covel Commons:** (310) 825-9315 free workshops on a wide variety of issues relating to academic & personal success [www.orl.ucla.edu](http://www.orl.ucla.edu) (click on “academics”)

- **Bruin Resource Center:** Includes services for transfer students, undocumented students, veterans, and students with dependents. [http://www.brc.ucla.edu/](http://www.brc.ucla.edu/)

- **Career Center:** Don’t wait until your senior year – visit the career center today! [http://www.career.ucla.edu/](http://www.career.ucla.edu/)

- **Center for Accessible Education (Formerly Office for Students with Disabilities):** A255 Murphy Hall: (310) 825-1501, TDD (310) 206-6083; [http://www.cae.ucla.edu/](http://www.cae.ucla.edu/)

- **College Tutorials at Covel Commons:** (310) 825-9315 free tutoring for ESL/math & science/composition/and more! [www.college.ucla.edu/up/ct/](http://www.college.ucla.edu/up/ct/)

- **Counseling and Psychological Services Wooden Center West:** (310) 825-0768 [www.caps.ucla.edu](http://www.caps.ucla.edu)

- **Dashew Center for International Students and Scholars 106 Bradley Hall:** (310) 825-1681 [www.internationalcenter.ucla.edu](http://www.internationalcenter.ucla.edu)

- **Dean of Students Office; 1206 Murphy Hall:** (310) 825-3871; [www.deanofstudents.ucla.edu](http://www.deanofstudents.ucla.edu)

- **Lesbian, Gay, Bisexual and Transgender Resource Center Student Activities Center, B36:** (310) 206-3628 [www.lgbt.ucla.edu](http://www.lgbt.ucla.edu)
- **Letters & Science Counseling Service**: A316 Murphy Hall: (310) 825-1965
  [www.college.ucla.edu](http://www.college.ucla.edu)
- **Library**: Get help with your research, find study spaces, attend a workshop, rent a laptop, and more. Learn more: [http://www.library.ucla.edu/](http://www.library.ucla.edu/)
- **Students in Crisis**: From the Office of the Dean of Students: Faculty and Staff 911 Guide for Students, commonly known as the “Red Folder.” This tool is intended to provide you with quick access to important resources for assisting students in need.
- **Student Legal Services; A239 Murphy Hall**: (310) 825-9894;
  [www.studentlegal.ucla.edu](http://www.studentlegal.ucla.edu)
- **Undergraduate Writing Center**: Peer learning facilitators (PLFs) are undergraduates who understand the challenges of writing at UCLA. Scheduled appointment and walk-in options are available, see [www.wp.ucla.edu/uwc](http://www.wp.ucla.edu/uwc) for more information about writing programs and to get assistance with your writing.
- **Undergraduate Research Portal**: The Undergraduate Research Portal helps students and faculty connect over research opportunities. It’s available now under the Academics tab on MyUCLA and can be directly accessed at, [urp.my.ucla.edu](http://urp.my.ucla.edu)
- **Undergraduate Writing Center**: Peer learning facility
- **UCLAONE.com**: UCLA ONE is UCLA’s interactive, online gateway for mentorship, professional networking, peer driven career advice and exclusive job leads. (Similar to LinkedIn for the UCLA community)