

## Term Information

Effective Term Spring 2023

## General Information

Course Bulletin Listing/Subject Area Music  
Fiscal Unit/Academic Org School Of Music - D0262  
College/Academic Group Arts and Sciences  
Level/Career Graduate  
Course Number/Catalog 6754  
Course Title Cognitive, Social and Health Benefits of Music Engagement  
Transcript Abbreviation Music Engagement  
Course Description Students will become familiar with the focus and methodology of research on the effects of arts participation on individual and collective behaviors, traits, perceptions, health and well-being indicators, and selected neurophysiological processes.  
Semester Credit Hours/Units Fixed: 3

## Offering Information

Length Of Course 14 Week  
Flexibly Scheduled Course Never  
Does any section of this course have a distance education component? No  
Grading Basis Letter Grade  
Repeatable No  
Course Components Seminar  
Grade Roster Component Seminar  
Credit Available by Exam No  
Admission Condition Course No  
Off Campus Never  
Campus of Offering Columbus

## Prerequisites and Exclusions

Prerequisites/Corequisites n/a  
Exclusions n/a  
Electronically Enforced No

## Cross-Listings

Cross-Listings n/a

## Subject/CIP Code

Subject/CIP Code 50.0901  
Subsidy Level Doctoral Course  
Intended Rank Masters, Doctoral

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## Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

## Course Details

### **Course goals or learning objectives/outcomes**

- to develop students' curiosity about the nonmusical benefits of music engagement
- to provide an overview of past and current inquiry on the educational, therapeutic, and clinical uses of music and illustrate the diversity of research on the topic
- to explore possible applications of such research,
- to nurture an evidence-based approach to inquiry
- to introduce students to relevant methods of empirical research
- to develop an awareness of the limitations of such research
- to practice how to describe, analyze, summarize, and interpret research findings in aural and written modalities

### **Content Topic List**

- Introduction
- Engagement of the Arts: United States data
- Context of music participation
- Cognitive benefits of art engagement
- Intellectual benefits of music instruction: ability and achievement
- Cognitive benefits of music engagement
- Health benefits of music engagement
- Health Benefits of arts participation
- Social effects of music engagements
- Music and prosocial behaviors
- Music and well being

### **Sought Concurrence**

No

## Attachments

- Music6754Final 11 5 21 syllabus.pdf  
*(Syllabus. Owner: Banks, Eva-Marie)*
- 6754ConcurrencePsych.pdf  
*(Concurrence. Owner: Leasure, Timothy Lee)*
- 6754ConcurrenceH&R.pdf  
*(Concurrence. Owner: Leasure, Timothy Lee)*

## Comments

- - Please remove some words from the course description so that it can all fit in the box.
- Please request concurrence from the relevant units. Psychology & the College of Medicine come to mind *(by Vankeerbergen, Bernadette Chantal on 11/09/2021 04:53 PM)*

**COURSE REQUEST**  
6754 - Status: PENDING

Last Updated: Vankeerbergen, Bernadette  
Chantal  
01/11/2022

**Workflow Information**

| Status             | User(s)                                                                                                                                               | Date/Time           | Step                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------|
| Submitted          | Banks, Eva-Marie                                                                                                                                      | 11/08/2021 01:02 PM | Submitted for Approval |
| Approved           | Leasure, Timothy Lee                                                                                                                                  | 11/09/2021 01:44 PM | Unit Approval          |
| Revision Requested | Vankeerbergen, Bernadette Chantal                                                                                                                     | 11/09/2021 04:53 PM | College Approval       |
| Submitted          | Leasure, Timothy Lee                                                                                                                                  | 12/08/2021 02:50 PM | Submitted for Approval |
| Approved           | Leasure, Timothy Lee                                                                                                                                  | 12/08/2021 02:50 PM | Unit Approval          |
| Approved           | Vankeerbergen, Bernadette Chantal                                                                                                                     | 01/11/2022 12:04 PM | College Approval       |
| Pending Approval   | Cody, Emily Kathryn<br>Jenkins, Mary Ellen Bigler<br>Hanlin, Deborah Kay<br>Hilty, Michael<br>Vankeerbergen, Bernadette Chantal<br>Steele, Rachel Lea | 01/11/2022 12:04 PM | ASCCAO Approval        |

## Cognitive, Social, and Health Benefits of Music Engagement

Music 6754, 3 credits

**Instructor:** Dr. Eugenia Costa-Giomi      **Email:** [costa-giomi.1@osu.edu](mailto:costa-giomi.1@osu.edu)

**Seminar:** Wednesdays 4:10 – 6:48; Hughes 110

**Office hours:** Mondays 10:00 – 11:30 and by appointment; Hughes 106G

**Course description:** In this course we will become familiar with the focus and methodology of research on the effects of arts participation on individual and collective behaviors, traits, perceptions, health and well-being indicators, and selected neurophysiological processes. We will discuss the interpretation, impact applications and limitations of current and past research on the topic and its implications for the field of music.

### Goals

- to develop students' curiosity about the nonmusical benefits of music engagement
- to provide an overview of past and current inquiry on the educational, therapeutic, and clinical uses of music and illustrate the diversity of research on the topic
- to explore possible applications of such research,
- to nurture an evidence-based approach to inquiry
- to introduce students to relevant methods of empirical research
- to develop an awareness of the limitations of such research
- to practice how to describe, analyze, summarize, and interpret research findings in aural and written modalities

|                 |            |            |            |
|-----------------|------------|------------|------------|
| <b>GRADING:</b> | 100 – 93 A | 83 – 80 B- | 69 – 67 D+ |
|                 | 90 – 93 A- | 79 – 77 C+ | 66 – 60 D  |
|                 | 89 – 87 B+ | 76 – 74 C  | < 60 E     |
|                 | 86 – 84 B  | 73 – 70 C- |            |

### Assignments:

- (1) **Participation:** there will be articles and discussions associated with each topic. Be prepared for lectures and discussion by reading these articles. Of course, you need to attend class to participate. But you also need to be able to formulate questions, answer questions, and share your ideas regularly. Be generous in sharing your thoughts and creating an intellectually stimulating environment.
- (2) **Weekly readings:** Each week, write a 1- to 2-page analytical/reflective essay on assigned readings. Formulating questions and trying to answer them is a good way to start the reflective process. You may be tempted to address factual information (e.g., What is fMRI?) when writing these short essays. However, I would like you to focus on more conceptual and broader questions that deal more with the “why” than the “what.” Factual questions can be answered by the article itself or through a simple internet search. Reflective questions require contextual information, integrative thinking, understanding of the problem discussed in the article, and reflection on the topic. This is the stuff I would like you to think about! I expect to see your understanding and integration of the content of the readings as well as your ability to draw criticism and implications for what we do as musicians, or educators or researchers. I may ask you to redo some of the

reflections to practice and explore different way of approaching a problem or topic. You may miss one of the reflections completely without penalties. Grade: 25%. **Reflections are due on Carmen Canvas weekly on Monday by 8:00 pm.**

- (3) Weekly discussion: You will comment on the reflections of your peers, supporting, criticizing, and adding to their views, or trying to answer their questions, or comparing them with your own. You may choose to provide four short comments (i.e., 100 – 150 words) to the reflection of other students, or two long ones (250 – 300 words). Grade: 10%. **Post your comments weekly on Carmen Canvas by Tuesday at 10:00 pm.**
- (4) Article presentations: You will be assigned to read two articles that no one else is required to read. Record yourself presenting each article in 10 minutes and upload it to Carmen Canvas so that everybody can watch it and comment on it. Grade: 10% **Variable due dates; to be assigned.**
- (5) Writing feedback: You will edit your peers' first draft. This is a very important task, one that is helpful to you and to your peers. Be honest and merciless as you identify problems with the writing and/or the content of the draft. Ask questions, provide suggestions, fix typos and mistakes, propose wording, etc. We are trying to help each other improve the papers! Grade: 5%. **Due in class Week 11.**
- (6) Paper. Write a review of literature (10-pages max excluding cover page, reference list, figures, tables, appendix) on a topic that interests you. Introduce the topic and purpose of the review of literature first, and then review at least 12 research articles that report original research (no reviews of lit, commentaries on a study, or practitioners' views of a study, for example). In addition to the research articles, you may also include other material (commentaries, reviews, media reports, podcasts, etc).

Use headings to organize the discussion of the main ideas and most relevant issues you identified. The focus of the review must be on the ideas put forth by the research rather than the articles themselves. In other words, do not describe each study one after the other one but elaborate on important concepts by referring to the studies and their findings. Integrate the findings, methodologies, purpose, or context of the studies, compare them, question them, support them, emphasize them, explain them, elaborate on them, propose alternative interpretations of them and other ways of answering relevant questions. Feel free to draw connections to your own field (music education, composition, etc). Conclude the review with a summary section of the main points of the review and suggestions for future work on the topic. Justify the relevance of your suggestions; do not just say "this could be done" it would be interesting to do this". Explain why it should be done and its significance, why it would be interested to the world (and not just you).

Include an abstract highlighting the main findings of your review (250 word max), a complete reference list of sources cited, and figures and tables if they are absolutely necessary for the understanding of the paper. The review of lit should have a meaningful title! Grade: 40%. **Due on the date of the final or a week after our last class meeting, whatever is the latest.**

In preparation for the writing of the paper, you will submit the following for feedback and not grade:

- (a) one paragraph proposal + three references + the abstracts of the articles **due on Week 8**

(b) a 1.5-2-page draft of any section of the paper that includes at least 4 references **due on Week 11**

Please note that NOT submitting the preparatory materials will result in up to 20% lower grade in the paper (10% reduction for each of a and b above).

(7) Paper presentation. Present your review of literature to the class using audiovisual materials. Powerpoint may be particularly appropriate because it allows you to include audio and audiovisual examples easily but is not required. Show relevant tables and figures, play/show stimuli used. Your presentation should be interesting, relevant, informative, and insightful. Think of ways to capture our attention, teach us required jargon or concepts, and make us remember the main points of your presentation. Make sure you emphasize the main points! Distribute a handout to your classmates that include the list of references and the main points of your review (1 page max.). 10-15 minutes. Grade: 10%. **Due on Week 13.**

### **General Rules:**

Assignments are due before or in class.

Written work should be typed, 12-point Times New Roman font, 1' margins, single-spaced. Final paper should conform to APA guidelines.

I try to reply to email within 24 hours. If I don't, do not hesitate to resend; sometimes things get lost in cyberspace, my inbox, or in my mind! Please be aware that I do not always read email during the weekends.

I understand that there are emergencies and unusual circumstances that may prevent you from being in class. Save the rare absence for when those occasions arise. If you must miss a class, propose a way to make up for the work missed including the discussion and original presentations of your peers that occur in class. Do this by email and seek my approval.

**Academic Integrity:** Plagiarism is taken very seriously at OSU. If you use words or ideas that are not your own, you must cite your sources. Otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course. You are responsible for understanding OSU Code of Student Conduct.

### **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/csc/>.

## **Students with Disabilities**

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic

barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12<sup>th</sup> Avenue.

## CALENDAR

**Wk 1** Introduction to the topic and context, content and goals of the class, syllabus.  
Instructor and students' introductions  
Resources, including library services, databases, search engines, Canvas.

**Wk 2** Engagement in the Arts: United States data

Reading:

<https://www.arts.gov/sites/default/files/when-going-gets-tough-revised2.pdf>

**Wk 3** The context of music participation

Costa-Giomi, E. (2012). Music instruction and children's intellectual development: The educational context of music participation. In MacDonald, R., Kreutz, G., & Mitchell, L. *Music, Health and Wellbeing*, 339-355. Oxford University Press: London.

**Wk 4** Cognitive benefits of art engagement

Readings: <https://www.arts.gov/sites/default/files/Arts-At-Risk-Youth.pdf>

Bangerter, A. & Heath, C. (2004). [The Mozart effect: Tracking the evolution of a scientific legend](#). *British Journal of Social Psychology*, 43(4), 605-623.

**Wk 5** Intellectual benefits of music instruction: ability and achievement

Reading:

Costa-Giomi, E. (2015). The long-term effects of childhood music instruction on intelligence and general cognitive abilities *Update: Applications of Research in Music Education*. doi: 10.1177/8755123314540661

Costa-Giomi, E. (2004). The effects of three years of piano instruction on children's self-esteem, academic achievement, and school performance. *Psychology of Music*, 32, 139-152.

## **Wk 6** Cognitive benefits of music engagement

### Article presentations (you will read and present only one of these)

Martins, M., Neves, L, Rodrigues, P., Vasconcelos, O. Castro S.L. (2018). Orff-Based Music Training Enhances Children's Manual Dexterity and Bimanual Coordination, *Frontiers in Psychology*, 9, 2616, doi 10.3389/fpsyg.2018.02616

Bowmer, A., Mason; K., Knight; J., & Welch, G. (2018). Investigating the Impact of a Musical Intervention on Preschool Children's Executive Function, *Frontiers in Psychology*, 9, 10.3389/fpsyg.2018.02389

Barbaroux, M., Dittinger, E., & Besson, M. (2019). Music training with Démos program positively influences cognitive functions in children from low socio-economic backgrounds. *PLoS ONE*, 14:e0216874.  
[Khttps://doi.org/10.1371/journal.pone.0216874](https://doi.org/10.1371/journal.pone.0216874)

James, C. E., Zuber, S., Dupuis-Lorenzon, E., Abdili, L., Gervaise, D., & Kliegel, M. (2019). Formal string instrument training in a class setting enhances cognitive and sensorimotor development of primary school children. *bioRxiv*.  
<https://doi.org/10.1101/829077>

Mosing, M. A., Madison, G. Pedersen, N. L., & Ullén, F. (2015). Investigating cognitive transfer within the framework of music practice: genetic pleiotropy rather than causality. *Developmental Science*, 18 504-512 doi [doi.org/10.1111/desc.12306](https://doi.org/10.1111/desc.12306)

Bigand, Emmanuel, and Barbara Tillmann. 2021. "Near and Far Transfer: Is Music Special?." *PsyArXiv*. February 12. doi:10.31234/osf.io/gtnza

Sala, G & Gobet, F. (2020) Cognitive and Academic Achievement Benefits of Music Training with Children. *Memory & Cognition*, 48, 429–1441,  
<https://doi.org/10.3758/s13421-020-01060-2>

## **Wk 7** Health benefits of music engagement

No reading today! Introductory lecture: the basics (neurology, physiological measures, music therapy, research designs in the medical field)

Proposal due: One paragraph topic description and 3 references + abstracts due.

## **Wk 8** Health benefits of music engagement: Alzheimer's Disease, Parkinson's Disease, NICU, Surgery, Depression, Anxiety, Autism, (propose other areas of interest)

### Article presentation due: You will read and present one of these:

Fancourt, D., Perkins, R., Ascenso, S., Carvalho, L. A., Steptoe, A., & Williamon, A. (2016). Effects of group drumming interventions on anxiety, depression, social resilience



- and inflammatory immune response among mental health service users. *Plos ONE*, 11(3),
- Zoteyeva, V., Forbes, D., & Rickard, N. S. (2016). Military veterans' use of music-based emotion regulation for managing mental health issues. *Psychology Of Music*, 44(3), 307-323. doi:10.1177/0305735614566841
- Standley, J. M. (2012). A discussion of evidence-based music therapy to facilitate feeding skills of premature infants: The power of contingent music. *The Arts In Psychotherapy*, 39(5), 379-382. doi:10.1016/j.aip.2012.06.009
- White-Schwoch, T., Carr, K. W., Anderson, S., Strait, D. L., & Kraus, N. (2013). Older adults benefit from music training early in life: Biological evidence for long-term training-driven plasticity. *The Journal Of Neuroscience*, 33(45), 17667-17674. doi:10.1523/JNEUROSCI.2560-13.2013
- Warth, M. et al. (2021). "Song of Life": Results of a multicenter randomized trial on the effects of biographical music therapy in palliative care. *Palliative Medicine* 1–11, DOI: [10.1177/02692163211010394](https://doi.org/10.1177/02692163211010394)
- [Karatekin](#), B.D. & [Icagasioglu](#) (2021). The effect of therapeutic instrumental music performance method on upper extremity functions in adolescent cerebral palsy, *Acta Neurol Belg.* 1-11 doi: 10.1007/s13760-021-01618-0.

**Wk 9:** Health benefits of arts participation: Guest speaker

Readings: TBD

**Wk 10** Social effects of music engagement

VOLUNTEER REQUEST: Draft of paper. 1.5- 2 pages, minimum of 4 references.

Reading: Alemán, X., Duryea, S., Guerra, N.G. et al. (2017). The Effects of Musical Training on Child Development: a Randomized Trial of "El Sistema" in Venezuela. *Prevention Science* 18: 865. <https://doi.org/10.1007/s11211-016-0727-3>

**Wk 11** Music and prosocial behaviors

Draft of paper and peer's comments due

Cirelli LK, Trehub SE, Trainor LJ. (2018). Rhythm and melody as social signals for infants. *Annals of the New York Academy of Science*. doi: 10.1111/nyas.13580.

Kirschner, S. & Tomasello, M. (2010). Joint music making promotes prosocial behavior in 4-year-old children. *Evolution and Human Behavior* 31. 354–364. doi:10.1016/j.evolhumbehav.2010.04.004

**Wk 12** Music and well-being

Reading:

Aronoff, U., & Gilboa, A. (2015). Music and the closet: The roles music plays for gay men in the 'coming out' process. *Psychology Of Music*, 43(3), 423-437. doi:10.1177/0305735613515943

Pitkäniemi, E., Pitkäniemi, A. Siponkoski, S., Maarit Jansson, Louhivuori, J., Johnson, J., Paajanen, T. & Särkämö, T. (2021). Beneficial effects of choir singing on cognition and well-being of older adults: Evidence from a cross-sectional study. *Plos One*.  
<https://doi.org/10.1371/journal.pone.0245666>

**Wk 13 & 14** Wrapping it up: review of methods, content, limitations and applications of research on the benefits of music engagement; interpretation and dissemination; future directions.

Student presentation of review of literature due

**Finals week** Paper due

**Subject:** RE: Concurrent sought

**Date:** Wednesday, November 17, 2021 at 8:45:01 AM Eastern Standard Time

**From:** Emery, Charles

**To:** Leasure, Timothy

Tim: Course looks great. We have no concerns with you teaching it. Thus, I am happy to send you my concurrence.

Charles

Charles F. Emery, Ph.D.  
Professor and Chair  
Department of Psychology  
Ohio State University  
Columbus, OH 43210

Phone: 614-688-3061

Fax: 614-292-6798

Email: [emery.33@osu.edu](mailto:emery.33@osu.edu)

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**From:** Leasure, Timothy <[leasure.13@osu.edu](mailto:leasure.13@osu.edu)>

**Sent:** Tuesday, November 16, 2021 9:41 PM

**To:** Emery, Charles <[emery.33@osu.edu](mailto:emery.33@osu.edu)>

**Subject:** Concurrent sought

Dear Dr. Emery,

The School of Music is building a new course, Music 6754 - Cognitive, Social, and Health Benefits of Music Engagement. After consultation with the College, it was suggested that we reach out to Psychology to request concurrence. The syllabus is attached.

Please let me know if I might assist in any way. Thank you.

Best Wishes,  
Tim Leasure

**Timothy Leasure**

Professor of Trumpet  
Associate Director and Chair of Graduate Studies  
Advisor: Bachelor of Science in Music (CS Track)

**The Ohio State University**

**School of Music**

215 Hughes Hall, 1800 N. College Ave.  
Columbus, OH 43210

[leasure.13@osu.edu](mailto:leasure.13@osu.edu) | [music.osu.edu](http://music.osu.edu)

<https://osu.zoom.us/my/timleasure>

**Subject:** RE: Concurrence Music 6754

**Date:** Wednesday, December 8, 2021 at 9:27:01 AM Eastern Standard Time

**From:** Nahikian-Nelms, Marcia

**To:** Leasure, Timothy

**CC:** Cohen, Anya

Dear Professor Leasure:

I am writing to inform you that the Curriculum Committee of the School of Health and Rehabilitation Sciences, after review of the syllabus, voted to provide concurrence in support of your proposed course Music 6754 Cognitive, Social, and Health Benefits of Music Engagement. It looks like an excellent course and we wish you the best in its' execution.

Sincerely,  
Dr. Nahikian-Nelms

Marcia Nahikian-Nelms, PhD,RDN,LD,FAND  
Professor, Clinical  
Director, Academic Affairs-School of Health and Rehabilitation Sciences  
Director, Education- Center for Faculty Advancement, Mentoring and Engagement  
Senior Faculty Affiliate - Michael V. Drake Institute for Teaching and Learning  
College of Medicine  
The Ohio State University  
453 West Tenth Avenue  
Columbus OH 43210  
614-292-4758

*Pronouns: She, Her, Hers*

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**From:** Rusnak, Sarah <Sarah.Rusnak@osumc.edu>  
**Sent:** Wednesday, November 17, 2021 1:05 PM  
**To:** 'leasure.13@osu.edu' <leasure.13@osu.edu>  
**Cc:** Nahikian-Nelms, Marcia <Marcia.Nahikian-Nelms@osumc.edu>  
**Subject:** FW: Concurrence sought

Hi Tim,

This sounds interesting, but I'm not the right person to handle this. I've copied our Director of Academic Affairs, Dr. Marcia Nahikian-Nelms, as she will know the next steps.

Take care,  
Sarah

**Sarah Rusnak, MS RD LD**  
Clinical Instructor  
**The Ohio State University**  
Division of Medical Dietetics and Health Sciences  
453 West 10th Ave, Columbus, OH 43210  
614.293.8767 Office  
[sarah.rusnak@osumc.edu](mailto:sarah.rusnak@osumc.edu)

**From:** Leasure, Timothy <[leasure.13@osu.edu](mailto:leasure.13@osu.edu)>  
**Sent:** Tuesday, November 16, 2021 9:44 PM  
**To:** Rusnak, Sarah <[Sarah.Rusnak@osumc.edu](mailto:Sarah.Rusnak@osumc.edu)>  
**Subject:** Concurrence sought

Dear Prof. Rusnak,

The School of Music is building a new course, Music 6754 - Cognitive, Social, and Health Benefits of Music Engagement. After consultation with the College of Arts and Sciences, it was suggested that we reach out to the College of Medicine to request concurrence. The syllabus is attached.

Please let me know if I might assist in any way or if I need to send this to another individual. Thank you.

Best Wishes,  
Tim Leasure

**Timothy Leasure**

Professor of Trumpet  
Associate Director and Chair of Graduate Studies  
Advisor: Bachelor of Science in Music (CS Track)

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<https://osu.zoom.us/my/timleasure>