

MUTH 331/551, Psychology of Music
Shenandoah Conservatory
Fall 2009

Instructor: Dr. Marina Korsakova-Kreyn

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Class Meetings: MW 11-11:50

Credit: 2 credits

Course Description: The study of psychological dimensions of musical behavior, including psychoacoustics, neurological considerations, the perception of musical elements, affective responses to music, the development of musical preference, musical ability, learning strategies, and socio-cultural influences. A minimum grade of “C” is required to pass this course.

Foundation:

“Shenandoah University educates and inspires individuals to be critical, reflective thinkers; lifelong learners...”

“...programs at Shenandoah Conservatory are designed to cultivate leadership skills and active participation in the advancement of the arts in a global society.”

This course requires individual research in the field of music psychology, which includes learning about elements of music, affective responses to music, and neural correlates of music perception. Learning about music perception and cognition involves contemplation of the philosophical aspect of the art of music. Therefore, this course stimulates reflection on various aspects of music and encourages learning of hard scientific facts that can be enormously helpful to music educators, performers, and music therapists.

Course Prerequisites: General Psychology or permission of Instructor

Course Objectives:

Upon successful completion of this course the student will be able to:

1. Identify and use terms associated with the study of psychology of music.
2. Describe major concepts associated with music perception and cognition.
3. Identify significant persons and their area of contribution to psychology of music.
4. Report on significant research findings associated with each of the course topics.
5. Demonstrate introductory understanding of current neurological theories related to musical behavior.
6. Objectively evaluate differing viewpoints about particular concepts associated with the psychology of music.
7. Objectively evaluate factors associated with apparent cause-effect relationships between music and human behavior.
8. Design and complete a research project intended to increase knowledge and understanding about particular aspects of music perception and cognition.
9. Demonstrate the ability to synthesize information from psychology of music with other disciplines.

Texts and Materials

Required Text:

Psychological Foundations of Musical Behavior (2003) by Radocy, R. E., and Boyle, J. D. (2003). Springfield, IL: Charles C. Thomas Publisher

Additional Materials:

1. *Music Cognition* (1986), W. Jay Dowling and J. L. Harwood, Academic Press
2. *The Cognitive Neuroscience of Music* (2003). Eds. Peretz, I. & R. J. Zatorre, Oxford University Press, New York
3. *Handbook of Emotions*, (2000, second edition). Eds. Lewis M., R. & Haviland-Jones J. M., Guilford Press
4. *Neuroscience* (2001), Ed. Purves, Sinauer

Attendance Policy:

Registration in this course is regarded as an agreement between the student and the institution that regular class attendance is essential to each student's academic progress. Regular and punctual class attendance is required. Students who are absent from, or late to class are held responsible for all material covered and assignments, regardless of the reason for the absence or lateness.

For consideration of an excused absence or lateness, the student is required to complete and submit a hard copy of the form, "Request for Excused Absence/ Lateness" within one week of the class missed. Otherwise, the absence will be recorded as unexcused. For each unexcused absence the student's final grade will be reduced by 5 points. Excessive absences for any reason (excused and/or unexcused) will result in the instructor's recommendation that the student withdraw from this course.

Consideration for absence or lateness will only be given in extreme, extraordinary situations beyond the student's control, including weather cancellations, immediate family emergencies or documented medical emergencies requiring immediate care by the school nurse or physician. Academic work required for other courses (including scheduled examinations, papers, and performance events) or employment conflicts do not constitute excused reasons for being absent or late to class. Finally, if a course assignment is due but not completed, the best option is to attend class, then complete the assignment as soon as possible.

Consistent class attendance is indicative of professional interest, and is expected of all students (refer to Conservatory Attendance Policy for details). Much of the in-class experience is dependent on discussions and role-play to demonstrate skills and knowledge. Students are afforded two absences (excused or unexcused) without affecting the course grade. For each absence after the first two, a student's course grade is lowered by five percentage points. Students who do not attend 25% of the scheduled sessions will receive the grade of F. University excused absences are excused only with the submission of official notification.

"Hard Copy" Communication and Submission of Assignments:

Unless announced otherwise, the only acceptable form of communication with the instructor regarding attendance and due date policies (described immediately above) is through hard copy (including notes regarding absences and the submission of assignments), not through email messages, attachments or blackboard communication.

Make-Up Policy: Assignments missed due to personal illness or emergency may be made up with the professor's consent, but on the student's initiative.

Documentation standards:

Cite sources used for written assignments, including text materials. Unless announced otherwise in class, narrative assignments are to be presented in APA style, typed and double-spaced:

- One-inch margins
- Times Roman Font
- Cover page (document title, your name, SU, course title, date)
- Reference list on separate page

Materials submitted for evaluation by the professor are expected to be presented in a clear, legible manner. Mistakes in spelling and grammar are to be kept to a minimum.

Due Dates:

In order to earn points toward the final grade the student is required to complete assignments by the due dates stated in class (unless announced otherwise, submit hard copy only). The grade for assignments submitted up to two days late will be reduced the equivalent of 1 letter grade. The grade for assignments submitted up to one week late will be reduced the equivalent of 2 letter grades. The grade for assignments submitted up to two weeks late will be reduced by 50% of the highest grade earned. Assignments will not be accepted for the purpose of earning points toward the final grade after 2 weeks beyond the due date.

Consideration for lateness regarding assignments will only be given in extreme, extraordinary situations beyond the student's control, including immediate family emergencies or documented medical emergencies requiring immediate care by the school nurse or physician. Academic work required for other courses (including scheduled examinations, papers, and performance events), employment conflicts, and computer/printer difficulties do not constitute an excused reason for lateness in meeting requirements for this course.

Note: Unless announced otherwise, graded activity associated with Course Requirement I ("Class Engagement") cannot be completed beyond the class in which the graded activity occurred. For example, if absent on the day an announced or unannounced quiz is administered, the quiz cannot be made up.

Grading:

The official grading system of SU, which includes plus and minus distinctions, will be used. For purposes of computing the final grade, numerical values assigned to letter grades are as follows (using C as an example): C+ = 79; C = 75; C- = 71. The final grade earned will be based on the following scale:

A+ = 98 – 100	B = 88 – 89	C+ = 78-79	D+ = 68-69
A = 93 - 97	B = 83 – 87	C+ = 73-77	D = 63-67
A- = 90 - 92	B- = 80 – 82	C- = 70-72	D- = 60-62

An earned grade of **A** represents outstanding work in all course requirements. The student's academic effort serves as a model for other students, and is acceptable for demonstration in a public setting. Students who have earned the grade of A have an outstanding attendance record, complete assignments by the due dates, maintain acceptable documentation standards, are active participants in class, demonstrate a positive attitude toward the learning process, and are respectful of others in the pursuit of educational & professional goals.

An earned grade of **B** represents above average work in all course requirements. The student's academic effort reflects strong interest in the subject matter, self-initiative, and mastery of essential concepts and skills. Students who have earned the grade of **B** have an outstanding attendance record, complete assignments by the due dates, maintain acceptable documentation standards, are active participants in class, demonstrate a positive attitude toward the learning process, and are respectful of others in the pursuit of educational and professional goals.

An earned grade of **C** represents average work in the majority of course requirements. The student demonstrates a minimum mastery of the majority of concepts and skills.

An earned grade of **D** represents below average work in the majority of course requirements. Specific deficiencies are identified.

A grade of **F** represents failure in the majority of course requirements. Significant deficiencies are identified.

Course Requirements & Value toward the Final Grade:

I. Class Engagement

20%

Periodic assignments, experiential activity, quizzes (announced and unannounced) and opportunities for discussion (student and/or teacher directed) will be provided as the basis for the students' demonstration of engagement with topics presented in this course from class to class. Also taken into consideration will be the student's overall administration of his or her participation in this course.

II. Text: Summary points

30%

Given student choice of 3 text chapters from the required text for this course and 3 scientific articles, the student will select 5 summary points per chapter and elaborate on each according to: 1) a paraphrased explanation of each point derived from text information, and 2) the use of a personalized example in support of his or her understanding of each point. (5% per chapter).

III. Formal Papers: Related Literature

20%

The student will complete two formal papers intended to reflect understanding of specific points presented in the text. Requirements will be distributed within the first few weeks of the start of the semester (10% per formal paper).

IV. Written examinations

30%

The student will complete a mid-term (15%) and final examination (15%) in order to demonstrate recall and understanding of specific factual information presented throughout the course. The examinations may include the following types of questions: true/false, multiple choice, fill in the blank, listing, matching, short answer, and discussion.

Outline of Classes:

Date Topic Assignment/Reading Due

8/24 INTRODUCTION: What is Music? Origins of music

8/26 PSYCHOACOUSTICAL FOUNDATIONS OF MUSIC: Physics of sound: harmonic series, pitch, amplitude, duration, timbre. Neurophysiology of hearing

8/31 Brodmann areas of the brain. Loudness and hearing loss. Possible neurological correlate of absolute pitch

9/2 Text summary 1

MELODY AND HARMONY: Melodic contour. Concept of melodic shape; transformation of melodic shape. Phrasing

9/9 Scale: the tonal system of reference. Tonal hierarchy. Tonality. Harmonic series and consonant and dissonant melodic intervals

- 9/14 Fulfillment and violation of tonal expectancy. “Atonal” music
- 9/16 Local and global perception in music. “Sliding window of music perception.” Gestalt
- 9/21 **Text summary 2**
Melodic objecthood and production of musical sound. Comparing musical syntax and linguistic syntax
- 9/23 Amusia and aphasia. Melodic intonation therapy
- 9/28 **Formal paper 1**
STRUCTURED SOUND TIME: Beat, meter, and tempo. Tonal chronotope: intertwined nature of tonal and temporal organization in music. Expressive timing: *rubato* and *agogica*
- 9/30 Rhythmic behavior. Affective influence of temporal organization and velocity in music, Rhythmic-motor therapy (rhythmical auditory stimulation)
- 10/5 **Text summary 3**
Attention and memory for musical features
- 10/7 **Midterm Exam**
- 10/14 AFFECTIVE RESPONSES TO MUSIC: Cardiovascular, cerebrovascular, and respiratory changes induced by different types of music. Music and pain management
- 10/19 Affective responses to melodic direction, mode, tessitura, tempo, and texture. Synaesthetic responsiveness to music
- 10/21 **Text summary 4**
Music emotion and the cognitivist’s vs. emotivist’s position on music cognition.
- 10/26 Gender and music perception and production.
- 10/28 DEVELOPMENT: Age-related differences in music perception
- 11/2 MUSICAL PERFORMANCE: Psychomotor behavior of a musician and interconnectedness of motor and auditory aspects of performance
- 11/4 **Text summary 5**
Prophylactics and treatment of focal dystonia in instrumentalists
- 11/9 **Formal paper 2**
Music in ceremonies
- 11/11 Performance anxiety
- 11/16 MUSICIANSHIP-RELATED BRAIN PLASTICITY: Music training shapes structural brain development.
- 11/23 **Text summary 6**
Neocortical and sub-cortical plasticity in musicians
- 11/30 AESTHETICS OF MUSIC: Psychological aesthetics applied to music and the mechanics of emotional thinking in music
- 12/2 MUSIC COGNITION: Music as a link between cognition and emotion
- TBA **Final Exam**

Academic Dishonesty:

All students at Shenandoah University are responsible for upholding the Honor Code. The Honor Code is a system of conduct that reflects the core principles and values that the University has established regarding individual responsibility and matters involving honorable conduct. Violations of the Honor Code include the following general areas: cheating, plagiarism, falsification, tampering with records, forgery, and withholding information. It is every student’s responsibility to report any violations that he or she observes to the professor or the Honor Court.

Please see the *Student Handbook* for more specific information.

Disclosure of Disability:

If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please notify me within the first two weeks of the semester by making an appointment with me as soon as possible. In addition, if you need classroom accommodations, please contact the Coordinator of 504/ADA Services.

Health Issues: Students are expected to maintain a state of health that permits them to function in the instruction offered. Proper nutrition and adequate rest form the basis for this condition.

Privacy Statement: In compliance with the **Family Educational Rights and Privacy Act of 1974**, students must authorize contact between faculty members and their parents/guardians. Forms are available in the Conservatory Office for you to sign if you wish to grant this permission – and must be signed prior to any discussions.

- **Text Resources** (scientific articles are marked by an asterisk):
- Bernardi, L., Porta, C., & Sleight, L. (2006). Cardiovascular, cerebrovascular, and respiratory changes induced by different types of music in musicians and non-musicians: The importance of silence. *Heart*, 92, 445-452.
- Blood A. J. & R. J. Zatorre (2000). Intensely pleasurable responses to music correlate with activity in brain regions implicated in reward and emotion, P. N. A. S., USA, 2001, 98(20): 11818-11823: http://www.zlab.mcgill.ca/supplements/emotion_and_music.html
- Bonny, H., with Summer, L., ed. (2002). *Music Consciousness: The Evolution of Guided Imagery and Music*. Barcelona Publishers.
- Bush, C. (1995). *Healing Imagery & Music: Pathways to the Inner Self*. Rudra Press.
- Gagnon, L. & Peretz, I. (2003). Mode and tempo relative contributions to "happy-sad" judgments in equitone melodies, *Cognition and Emotion*, 17: 25-40
- Gaser C. & G. Schlaug. (2003). Brain Structures Differ Between Musicians and Non-Musicians, *The Journal of Neuroscience*, 23(27):9240-9245
- Gosselin N., Peretz I., Johnsen E., Adolphs R.(2007). Amygdala damage impairs emotion recognition from music, *Neuropsychologia*, 45: 236–244
- Hodges, D.A. ed. (1996). *Handbook of Music Psychology*. San Antonio: IMR Press
- Ethnomusicology, *Journal of the Society for Ethnomusicology*.
- Huron D. (2006). *Sweet Anticipation: Music and the Psychology of Expectation*, MIT Press
- Huron D. (2003). Is music an evolutionary adaptation? *The Cognitive Neuroscience of Music* Eds. I. Peretz, & R. J. Zatorre, Oxford University Press, New York
- Flatischler, R. (1992). *The Forgotten Power of Rhythm*, LifeRhythm.
- Hyde, K., Lerch, J., Norton, A.C., Forgeard, M., Winner, E., Evans, A., & Schlaug (2009). Music training shapes structural brain development. *Journal of Neuroscience*, 29(10):3019-3025: <http://www2.bc.edu/~winner/pdf/braindevelopment.pdf>
- Gouk, P. ed. (2000). *Musical Healing in Cultural Contexts*, Ashgate.
- Ito, T. A., Larsen, J. T., Smith, N. K., Cacioppo, J. T. (1998). Negative Information Weighs More Heavily on the Brain: The Negativity Bias in Evaluative Categorizations. *Journal of Personality and Social Psychology*, 75 (4), 887-900

- Juslin, P. N., & Sloboda, J. A. (Eds.) (2001). *Music and emotion: Theory and research*. Oxford University Press
- Kenny, C. & Stige, B., eds., (2002). *Contemporary Voices in Music Therapy: Communication, Culture, and Community*. Norway: Unipub forlag.
- Krumhansl, C. L. (1997). An exploratory study of musical emotions and psychophysiology. *Canadian Journal of Experimental Psychology*, 51, 336-352.
- Krumhansl, C. L. (2002). Music: a link between cognition and emotion, *Current Directions in Psychological Science*, 11(2): 45–50
- Langer, S. (1957/1942). *Philosophy in a New Key: A Study in the Symbolism of Reason, Rite and Art*, Harvard University Press
- Levitin, D. (2005). Musical behavior in a neurogenetic developmental disorder: Evidence from Williams Syndrome. *Annals of the New York Academy of Sciences*, 1060, 325-334
- McDermott, J., & Hauser, M.D. (2005). The origins of music: Innateness, uniqueness, and evolution, *Music Perception*, 23: 29-59
- Meyer, L. B. (1956). *Emotion and Meaning in Music*, Chicago University Press
- Panksepp, J. & Bernatzky, G. (2002). Emotional sounds and the brain: the neuro-affective foundations of musical appreciation, *Behavioural Processes*, 60:133-155
- Peretz, I. (2001). Brain Specialization for Music: New Evidence from Congenial Amusia, *Annals of New York Academy of Sciences*, 930:153-165
- Peretz, I. & Zatorre, R. (2005). Brain organization for music processing, *Annual Review of Psychology*, 56: 89-114
- Ramachandran V.S. & Hubbard E.M. (2003). Hearing Colors, Tasting Shapes, *Scientific American*, 288(5):42-49
- Roy, M., Rainville, P., Peretz, I. Emotional valence contributes to music-induced analgesia. Pain, web source: http://www.brams.umontreal.ca/plab/downloads/Roy_et_al_2007.pdf
- Schneck, D. & Schneck, J. (1997). *Music in Human Adaptation*. Virginia Polytechnic Institute & State University.
- Scruton, R. (1996). *The Aesthetics of Music*, Oxford University Press
- Shewmon, D.A., Holmes, D.A., Byrne, P.A. (1999). Consciousness in congenitally decorticate children: developmental vegetative state as self-fulfilling prophecy. *Developmental Medicine and Child Neurology*, 41, 364-374
- Stige, B. (2002). *Culture-Centered Music Therapy*, Barcelona Publishers
- Summer, L. (1996). *Music: The New Age Elixir*. New York: Prometheus Books.
- Taylor, D. (1997). *Biomedical Foundations of Music as Therapy*. MMB Music, Inc.
- Titon, J.T. (2002). *Worlds of Music and compact discs*, 4th edition, Schirmer Books.
- Trainor, L.J. (2004). Are there critical periods for music development? *Developmental Psychobiology*, 46:262-278
- Trainor, L.J. & L. A. Schimid. (2003). Processing emotions induced by music. The Cognitive Neuroscience of Music, Eds. I. Peretz, & R. J. Zatorre, Oxford University Press, New York
- Tsang, C. D., Trainor, L. J., Santesso, D. L., Tasker, S. L., Schmidt, L. A. (2001). Frontal EEG responses as a function of affective musical features. *Annals of NY Academy of Sciences*, 930, 439-42
- Zatorre, R. (2005). Music, the food of neuroscience? *Nature*, 434: 312-315

- **Academic Web Sites:**

- Psychology of Music - Published in Association with Society for Education, Music and Psychology Research, www-gewi.uni-graz.at/staff/parncutt/musicpsychology.html
- Institute for Music Research - <http://imr.utsa.edu/> (including: CAIRSS for Music (Computer-Assisted Information Retrieval Service). System) <http://imr.utsa.edu/CAIRSS.htm>

- **Popular Press:**

- This Is Your Brain on Music: The Science of a Human Obsession by Daniel J. Levitin; <http://www.yourbrainonmusic.com/>
- http://www.wired.com/news/technology/medtech/0,71631-0.html?tw=wn_index_2
- (“Wired” - Information on how the brain processes music.)
- Muzak: <http://en.wikipedia.org/wiki/Muzak>
<http://media.hyperreal.org/zines/est/articles/muzak.html>
- <http://nomuzak.co.uk/>
- Wikipedia (entry on “Music Psychology”).

- **Conference:**

- <http://www.bizspirit.com> (International Sound Healing Conferences)

- **Technological Resources:**

- Kurzweil pc1x (keyboard) Description:
<http://www.kurzweilmusicsystems.com/products.html?Id=282>
- Review:
ftp://ftp.youngchang.com/pub/Kurzweil/Pro_Products/PC1X/PC1Xreview.pdf
- WaveRider Biofeedback System (EEG, EMG, GSR, HR)
<http://www.futurehealth.org/waveride.htm>
- Somatron (vibroacoustic chair) <http://www.somatron.com/>

Music Therapy Professional Documents:

AMTA: Standards of Clinical Practice, Code of Ethics, Professional Competencies

CBMT: Scope of Practice, Code of Professional Practice

I have received, read, and understand the nature of and requirements for:

Course Number and Name _____

Signature _____ Date _____