

*"The mind is a fire to be kindled, not a vessel to be filled."  
— Plutarch*

# MUS\_TECH 335-0

## Special Topics: Multimedia Cognition

Northwestern University—Spring, 2005  
MW 11:00 a.m. – 12:20 p.m., MAB 125

**Dr. Scott D. Lipscomb, Associate Professor**

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### COURSE SYLLABUS

#### **Course description:**

A study of the processes involved in the perception and cognition of the multimedia experience. Topics to be covered will include media aesthetics, human cognitive processing, results of related experimental research, and analysis of existing works. This course is designed for both the music major and non-music major. Because it is a music course, significant emphasis will be placed upon the sonic component within this multi-sensory artform. However, the important role played by other senses—visual, tactile, and even, in some contexts, olfactory—will provide insight into cross-modal interactions.

#### **Incoming competency of students expected by instructor:**

Students are expected to arrive with varying levels of musical training, visual arts training, and/or familiarity with the field of cognitive science. Therefore, vocabulary and other necessary keys to understanding will be built from the ground up, so all participants are able to communicate intellectually about the subject matter.

#### **Statement of Course Objectives:**

This course will provide the student an opportunity to ...

- ✓ develop a vocabulary for intellectual discussion about the multimedia experience
- ✓ improve understanding regarding the audience perspective when experiencing multimedia and the aesthetics involved
- ✓ learn about the sensory mechanisms, perceptual processes, and cognitive organization required in order for an audience to be moved by an aesthetic experience
- ✓ become familiar with a basic core of experimental research into multi-modal cognitive processing, cross-modal interactions, and to discover research directly related to a specific student-selected topic of primary interest
- ✓ develop an understanding of the specific models of multimedia proposed by Cook & Chion, critically evaluate their efficacy, and apply these models (or a revised form) to novel multimedia contexts

**Required texts:**

[Cook] Cook, N. (1998). Analyzing musical multimedia. New York: Oxford University Press. [available at Norris Bookstore]

[Chion] Chion, M. (1990). Audio-Vision: Sound on Screen (trans. C. Gorbman in 1994). New York: Columbia University Press. [available at Norris Bookstore]

**Course Reader:** students will be required to read & comprehend a series of articles on a variety of topics. These articles have been collected into a course reader that can be purchased at Quartet Copies. These readings form an essential part of the course content and are required of every student.

**Additional Materials & Requirements:**

- ✓ All students will be required to utilize the Blackboard Discussion Board for the submission of reading reflections (see below). Point a web browser to <http://courses.northwestern.edu>, then provide your UNet username & password.

**Schedule of Assignments (subject to change)<sup>1</sup>:**

**Introduction**

March 29<sup>th</sup>  
Review Course Syllabus  
Instructor Expectations

**(Media) Aesthetics**

March 30<sup>th</sup>  
Meyer (1956), pp. 1-82  
Langer (1953), pp. 411-415

April 4<sup>th</sup>  
Zetl (1990), pp. 1-17, and 332-385

April 6<sup>th</sup>  
Gorbman (1987), pp. 1-69

**Analytical Models of (Musical) Multimedia**

April 11<sup>th</sup>  
Chion, pp. vii-xxvii and 3-137

April 13<sup>th</sup>  
Chion, pp. 142-213

April 18<sup>th</sup>  
Cook, pp. v-xi and 3-129

April 20<sup>th</sup>  
Cook, pp. 133 – 272

April 25<sup>th</sup>  
[discuss examples from Cook]

**Music Perception & Cognition**

April 27<sup>th</sup>  
Lipscomb & Hodges (1996), pp. 83-132

May 2<sup>nd</sup>  
Lipscomb (1996), pp. 133-175

May 4<sup>th</sup>  
[examples/demos]]

**Empirical Research**

May 9<sup>th</sup>  
Cohen (2001)  
Marshall & Cohen (1988)

May 11<sup>th</sup>  
Tannenbaum (1956)  
Bertelson & Radeau (1981)  
Thayer & Levinson (1983)

May 16<sup>th</sup>  
Lipscomb & Kendall (1994)  
Lipscomb (in press)

May 18<sup>th</sup>  
Boltz (2001)  
Krumhansl & Schenck (1997)

May 23<sup>rd</sup> & 25<sup>th</sup>  
Report on Related Literature

May 30<sup>th</sup> & June 1<sup>st</sup>

**Final Project Presentations**

**Readings:** For every reading assignment, each student is required to write a 1- to 2-paragraph (250 word minimum) "reflection" to be posted to an appropriate forum of the Blackboard Discussion List *prior* to the class meeting referenced in the course schedule above. The posting must clearly communicate two things: 1) a basic understanding of the content of the reading and 2) the student's individual response to or thoughts about that topic. Evidence of the latter may come in the form of a question posed to the rest of the class. Students will be expected to respond to a minimum of *five* of these questions during the course of the semester. This virtual discussion is a graded component of the semester total. All postings that are submitted complete and on time will receive a grade of 100%. Any posting submitted after the due date will automatically receive a grade of 75%. **[No posting will receive credit if posted more than two class periods following its due date.]** Incomplete submissions will receive a grade of 50% or less, depending on the amount completed.

<sup>1</sup> Any changes related to due dates for assignments or exam dates will be communicated to students via the email address provided in Northwestern's online system. Students are responsible for ensuring this information is up-to-date. If you have questions, contact the IT Help Desk at (847) 491-HELP.

### **Grading:**

- 30% - reading assigned materials & preparation of questions/comments posted on Blackboard
- 30% - class participation (10%), replies to Blackboard postings (10%), and individual homework assignments (10%)
- 40% - Final Project

Course grades will be assigned according to the following scale:

|               |      |               |      |
|---------------|------|---------------|------|
| 92.01 – 100   | = A  | 78 – 79.99    | = C+ |
| 90 – 92       | = A- | 72.01 – 77.99 | = C  |
| 88 – 89.99    | = B+ | 70 – 72       | = C- |
| 82.01 – 87.99 | = B  | 60–69.99      | = D  |
| 80 – 82       | = B- | < 60          | = F  |

**Final Project:** At the end of the quarter, each student will be required to complete an individual project (40% of course grade). The project will be submitted in written form (10-15 pages) *and* will be presented orally (10-15 minutes) during the last week of classes. A detailed description of the project requirements will be made available on Blackboard. In order to receive an “A” on the project, students must integrate knowledge gained from the readings, class & virtual discussions, multimedia examples presented, and instructor presentations and apply this understanding to the analysis of a selected multimedia work, a portion of which will be presented to the class as part of the oral presentation.

**Attendance:** MANDATORY ... period!! For each absence beyond two, half a letter grade will be deducted from the course grade.

**Scholastic Dishonesty:** the University expects every student to maintain a high standard of individual integrity for work done. Scholastic dishonesty is a serious offence which includes, but is not limited to, cheating on a test of other class work, plagiarism (the appropriation of another’s work and the unauthorized incorporation of that work in one’s own work), and collusion (the unauthorized collaboration with another person in preparing college work offered for credit). In cases of scholastic dishonesty, Dr. Lipscomb will initiate disciplinary proceedings against the student. Any student caught cheating on an exam or project will receive a “0.” It’s not worth the risk—don’t do it!

**Pagers & cell phones are disruptive to this class.  
ALWAYS turn them off when entering the classroom.**

## ***Reading List***

### **Complete Books**

Cook, N. (1998). *analysing musical multimedia*. Oxford: Clarendon Press.

Chion, M. (1994). Audio-vision: Sound on screen, (trans. C. Gorbman). NY: Columbia University Press. [originally published in 1990 as L’audio-vision by Editions Nathan, Paris]

### **Book Excerpts & Articles**

Bertelson, P. & Radeau, M. (1981). Cross-modal bias and perceptual fusion with auditory-visual spatial discordance. *Perception & Psychophysics*, 29(6), 578-584.

Boltz, M.G. (2001). Musical soundtracks as a schematic influence on the cognitive processing of filmed events. *Music Perception*, 18(4), 427-454.

Cohen, A.J. (2001). Music as a source of emotion in film. In P. Juslin & J. Sloboda’s (Eds.), *Music and emotion: Theory and research*, pp. pp. 249-272. Oxford: Oxford University Press.

- Davies, J.B. (1977). *The psychology of music*. Stanford, CA: Stanford University Press.  
*Introduction & Chapter 1 ("Psychology and Music"), pp. 11-106*
- Dowling, W.J. & Harwood, D.L. (1986). *Music cognition*. NY: Academic Press  
*Chapter 8 ("Emotion and Meaning"), pp. 202-224*
- Gorbman, C. (1987). *Unheard melodies: Narrative film music*. Bloomington, IN: Indiana University Press.  
*Introduction & Chapter 1-3, pp. 1-69*
- Krunhansl, C.L. & Schenck, D.L. (1997). Can dance reflect the structural and expressive qualities of music? A perceptual experiment on Balanchine's choreography of Mozart's Divertimento No. 15. *Musicae Scientiae*, 1(1), 63-85.
- Langer, S.K. (1942). *Philosophy in a new key: A study in the symbolism of reason, rite, and art*, 3<sup>rd</sup> edition. Cambridge, MA: Harvard University Press.  
*Chapter 3 ("The Logic of Signs and Symbols") & 4 ("Discursive and Presentational Forms"), pp. 53-102*  
*Chapter 8 ("On the Significance of Music"), pp. 204-245*
- Langer, S.K. (1953). *Feeling and form: A theory of art developed from Philosophy in a new key*. NY: Charles Scribner's Sons  
*Appendix ("A Note on the Film"), pp. 411-415*
- Lipscomb, S.D. (1996). Cognitive Organization of Musical Sound. In *Handbook of Music Psychology*, 2<sup>nd</sup> edition (D. Hodges, Ed.), pp. 133-175. San Antonio, TX: IMR Press.
- Lipscomb, S.D. (in press). The perception of audio-visual composites: Accent structure alignment of simple stimuli. *Selected Reports in Ethnomusicology*, 12 [expected publication date: Winter 2005].
- Lipscomb, S.D. & Kendall, R.A. (1994). Perceptual judgment of the relationship between musical and visual components in film. *Psychomusicology*, 13, 60-98.
- Marshall, S.K. & Cohen, A.J. (1988). Effects of musical soundtracks on attitudes toward animated geometric figures. *Music Perception*, 6(1), 95-112.
- Meyer, L.B. (1956). *Emotion and meaning in music*. Chicago: University of Chicago Press.  
*Chapter 1 ("Theory") & 2 ("Expectation and Learning"), pp. 1-82*
- Tannenbaum, P.H. (1956). Music background in the judgment of stage and television drama. *Audio-Visual Communication Review*, 4(2), 92-101.
- Thayer, J.F. & Levenson, R.W. (1983). Effects of music on psychophysiological responses to a stressful film. *Psychomusicology*, 3(1), 44-52.
- Zetl, H. (1990). *Sight sound motion: Applied media aesthetics*, 2<sup>nd</sup> edition. Belmont, CA: Wadsworth Publishing Company  
*Chapter 1 ("Applied Media Aesthetics"), pp. 1-17*  
*Chapter 16 ("The Five-Dimensional Field: Sound") & 17 ("Structuring the Five-Dimensional Field: Sound Structures and Sound-Picture Combinations"), pp. 332-385*

**Music Education Students:**

**Music Content-Area Standards met:** 3F, 3G, 3N, 3O, 4A, 4B, 4D, and 4F

**Illinois Professional Teaching Standards met:** none