

Music 260F Syllabus
University of California, Santa Barbara
Sound Color: Timbre and Music
Fall 2010

Professor: John Hajda
 Music 2312, jhajda@music.ucsb.edu
 Office Hours: M 10-11, Tu 10-11, W 11-noon or by appointment

Class Meetings: Mondays 2:15-3:30, Thursdays 11-12:15, Music Library Seminar Room A (Music 2408A)

Readings: Cook, P.R. (Ed.) (1999). Music, cognition and computerized sound: An introduction to psychoacoustics. MIT Press: Cambridge, MA.
 Available online at <http://uclibs.org.proxy.library.ucsb.edu:2048/PID/8514> (if off-campus log in to UCSB Library proxy server before attempting to access this text)
 Additional readings will be distributed in class or online via direct link or E-res.

Description: "Sound color" refers to the quality or timbre of musical sound, whether instrumental, vocal, or synthetic. This course investigates timbre's special perceptual and cognitive qualities, as well as its unique expressive power in music. Scientific approaches will be used, and examples will be drawn from Western and non-Western folk, traditional and classical musical traditions.

The first third of this course will cover the basics of psychoacoustics; the second third we will discuss selected examples instrumental and vocal timbre research. This will provide the basis for the keystone project: individually designed and completed research projects that address questions bearing on musical timbre.

Prerequisites: Graduate standing or consent of the instructor (if undergraduate). Students are expected to know basic Western music fundamentals and should be familiar with basic algebra and trigonometry and be able to compute simple mathematical, especially algebraic, equations.

Schedule of topics:

Week	Dates	Assigned Reading	Topics/Special notes
1	Sept. 27, Sept. 30	Cook, Chap. 3, 23 Cook, Chap. 4	Introduction and syllabus review Introduction to psychoacoustics
2	Oct. 4, Oct. 7	Cook, Chap. 7 Hajda, Kendall, Carterette and Harshberger	Introduction to psychoacoustics Methodological issues in timbre research
3	Oct. 11, Oct. 14	TBD	Dimensions of timbre
4	Oct. 18, Oct. 21	TBD	Vocal timbre
5	Oct. 25, Oct. 28	Fales (2008) Berger and Fales	Non-western perspectives on timbre
6	Nov. 1, Nov. 4	Fales (2002) Fales and McAdams	Non-western perspectives on timbre
7	Nov. 8	---	Final project discussion
8	Nov. 15, Nov. 18	---	Individual student consultations. Data

			collection (Nov. 19 and 22 from 1-1:50 p.m.)
9	Nov. 22	---	Individual student consultations
10	Nov. 29, Dec. 2	---	Student research project presentations

UCSB Holidays: Thursday, Nov. 11 and Thursday-Friday, Nov. 25-26. No class or office hours that day.

Class Discussion: Students will be expected to lead discussion for two research articles beginning in Week 4.

Final Project: Students will run and conduct analyses for an individual research project of their own design. They will report their findings during a *15-minute in-class research presentation during week 10* and complete a 6-8 page final report. The project must include a *perceptual research experiment* on some aspect of musical timbre. Data collection will take place during regular Music 160F (undergraduate) meetings on Friday, November 19 and Monday, November 22 from 1-1:50. The final report must include the following: problem statement, literature review, hypothesis and experimental design, results, discussion. The topic must be pre-approved by the instructor. *The paper is due at noon on Thursday, December 9.* More details regarding specific requirements will be given during the course of the term.

Grading (4 units):

Class Discussion	20%
Research presentation	40%
Final paper	40%

Modifications to the above syllabus may be announced by the professor at any time.