

**PSY355M: Cognitive Psychology of Music**

Fall 2021

Unique number: 43075

Tues/Thur 2:00 – 3:30

Burdine 208

Course website: <https://labs.la.utexas.edu/gilden/psy-355m/>

**Professor:** David Gilden

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Office Hours: by Zoom appointment

**Course Description:** This course explores the cognitive foundations of music. We will examine the full range of physical, psychophysical, and cognitive mechanisms that lead to musical experience. The course begins with the physics of musical instruments and the physical qualities of musical pitch. This leads to the psychophysics of hearing and why some sounds are experienced as consonant and others as dissonant. We then turn to perceptual organization and develop the sense in which music is an emergent phenomenon. Finally we examine the structures in working memory that allow individual pitch events to be organized into musical expressions. Along the way we will look at the general principles that govern the structure of music and also investigate the extent to which other species understand and hear music as music. The course will also include a deep analysis of musical expectancy in terms of fractal structure and dynamic systems. The order of topic presentation and all of the readings are available on the course website.

**Readings:** There is no textbook for this course; all readings will become available on the course website.

**Course Requirements and Grading:** There will be three exams in this course. The exams will be derived from material presented in lecture. Each exam will count towards 33% of the final grade.

**Prerequisites:** For PSY majors, PSY 301 & 418 with grade at least C in each; For non-majors, PSY 301 with grade at least C, & 1 of following with grade at least C: BIO 318M, C E 311S, ECO 329, EDP 371, GOV 350K, KIN 373, M 316, PSY 317, SOC 317L, S W 318, STA 309.

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