This is a course in both thinking about music and thinking in music. In this course, you will learn to think about music, often in ways you never have in the past. In addition, you will learn to think in music the way Western musicians do — learning to read music notation as sound, and to hear music as concepts, ideas, and notation.

Along the way, you will learn, develop, and apply mathematical and algorithmic reasoning skills in the pursuit of better understanding Western music theory. We will begin to think critically about larger topics, such as how music communicates emotion, and how this might change between cultures. Your work in class and your homework will involve various kinds of music-theoretical problem solving. Your homework, quizzes, and final exam will assess and evaluate how well you have assimilated these concepts and skills.

Calculation of Course Grade

Your grade in this class will be the product of the following:

- homework: 20%
- quizzes: 35%
- final examination: 35%
- attendance: 10%

Assignments

Homework assignments will come in two varieties. Mostly, they will involve timed skills drills on UMass's internet-based assignment system, OWL. There will also be readings/podcasts with short responses associated with them periodically. There may also be other assignments that are not to be handed in which will not be graded. However, you will find that completing these ungraded assignments will help prepare you for class, for the subsequent graded assignments, for the quizzes, and for the final exam.

The textbook for this class will be available as PDF files via Moodle. In addition, much course material will be presented via class lectures and discussions. This means that attending lectures, paying close attention, and taking good notes will be particularly important.
Readings, Homeworks
There is no textbook for this class, but each module's reading and homework will be posted online. You will be expected to have them printed out or available on a computer/mobile device during class time.

If you would like to consult published textbooks for reference, by all means do so. There are plenty available in the music library.

But, more importantly, absolutely everything we are talking about is google-able. And while wikipedia may not be the best source for some things, it is an excellent source to review or expand your understanding of the concepts we'll talk about in this class.

Attendance Policy
Attendance will be taken at the beginning of class. You are responsible for attending class, understanding the material, and doing the homework. Late work is not accepted without a legitimate and accepted excuse. If you have an excused absence on the day of a quiz, you will be responsible for making up the quiz with a TA. You are responsible for any missed work and for learning the subsequent assignments.

Attendance Policy
Short quizzes will be given throughout the semester. They will be announced at least one class period beforehand. Pay close attention to email announcements for quiz scheduling.

Respect for Diversity
Within this classroom, we will respect all manifestations of student diversity. This includes – but is not limited to – expressions of cultural, gender, personal background, and ability level. Language or actions that explicitly or implicitly marginalize another student in any way will not be tolerated.

Accommodation Policy
The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), Learning Disabilities Support Services (LDSS), or Psychological Disabilities Services (PDS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements.

Academic Honesty
It is expected that all students will abide by the Code of Student Conduct and the Academic Honesty Policy, available at the Dean of Students Office or online at the following URL:

http://www.umass.edu/dean_students/codeofconduct/

Sanctions for acts of dishonesty range from receiving a grade of F on the paper/exam/assignment or in the course, loss of funding, being placed on probation or suspension for a period of time, or being dismissed from the university. All students have the right of appeal through the Academic Honesty Board.
Course Outline

UNIT 1. THE NATURE OF SOUND AND MUSIC
The four seemingly irreducible elements of sound
   Duration (rhythm)
   Pitch
   Tone color (timbre)
   Loudness (dynamics)
What is sound? What is music?

UNIT 2. THE ELEMENTS OF TIME IN MUSIC
   pulse
   levels of pulse
   primary & secondary pulses
   meter
   beat
   measure
   rhythm

UNIT 3. THE ELEMENTS OF PITCH
Height as a metaphor for pitch in Western music (same; higher; lower)
Continuous versus discreet pitch
Dividing strings (and other sonorous bodies) — musical intervals as proportions
   2:1
   3:2
   Some other proportions
   The overtone series
Scales — ordered collections of discreet pitches
Western scales I — the major scale
Scale degrees (discreet members of scales)
Naming scale degrees
Octave equivalence
Whole steps and half steps
The structure of the major scale
UNIT 4. INTRODUCTION TO NOTATING METER AND RHYTHM

Horizontal space as a metaphor for the temporal domain
The binary nature of rhythm symbols in music
Note shapes as a means of representing proportional durations
  - Note heads
  - Stems
  - Flags
  - Beams
Meter signs (simple meters only)
Bar lines
Rhythm reading as a skill

UNIT 5. INTRODUCTION TO NOTATING PITCH

Vertical space as a metaphor for the pitch domain
Pitches in campo aperto
Horizontal lines as demarcators
“Absolute” pitch names in Western music [letters instead of syllables or numbers]
Absolute and relative pitch
Clefs [G; F; C]
Staves
The grand staff
Pitch naming as a skill

UNIT 6. MOVABLE TONIC (TRANSPOSITION)

Transposition
Sharps and flats
Introduction to enharmonic equivalence

UNIT 7. KEY SIGNATURES

Key signatures
The system of keys
The circle of fifths
Accidentals
UNIT 8. INTERVALS
Ways of measuring pitch distance between sounds
Number
Quality
Inverting intervals

UNIT 9. COMPOUND METER; TRIPLETS AND DUPLETS
Duple versus triple division of the beat
Compound meters
Triplets and duplets

UNIT 10. MINOR KEYS
Western scales II — the minor scale
Tonic
The tonic as a perceptual and cognitive construct
The forces of tonicization (what makes a melody “in a key”)
Minor key signatures
Parallel and relative keys
The circle of fifths (now including relative minor keys)
“Natural,” harmonic, and melodic minor
the modes — a system of two keys and four modes

UNIT 15. TEXTURE
Monophony
Polyphony
Homophony
“true” homophony
melody and accompaniment
Heterophony
Freistimmigkeit

UNIT 16. TIMBRE
Timbre as a perceptual experience
Timbre as a product of overtones
Other factors that we perceive as “timbre”
Categories of timbre
instrumental; vocal
idiophones; chordophones; aerophones; membranophones; [electrophones]
Western instrumental
Western vocal
UNIT 13. HARMONY
Triads
The concept of chord roots

Naming triads by letter name

Naming triads by scale degree

Inverting triads
Seventh chords

UNIT 13b HARMONIC SYNTAX
Expectation & Probability
How norms change in time and place
Computer modeling of Syntax
Finite State Automata

UNIT 14. MELODY
Melodic contour
Rhythmic proportions
Absolute pitches
Intervals
Scale degrees
Melodic identity
Phrasing (& interaction with hypermeter)

UNIT 14b. MELODIC SYNTAX
More Expectation & Probability
Different ways to model melody

UNIT 17. FORM IN MUSIC
The idea of sections in music
Same, similar, and contrasting
ABA form
Song form
Introduction to other forms
**Tentative Course Schedule**
*Always refer to timely classroom and online announcements for Quiz times and due dates*

<table>
<thead>
<tr>
<th>Date</th>
<th>Reading / Topic</th>
<th>Assignment / Quiz</th>
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<tbody>
<tr>
<td>Jan 23</td>
<td>Unit 1: The Nature of Sound and Music</td>
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<tr>
<td>Jan 25</td>
<td>Unit 2: The Elements of Time in Music</td>
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<tr>
<td>Jan 30</td>
<td>Unit 3: The Elements of Pitch</td>
<td>Homework 1 Due, Response 1 Due</td>
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<td>Feb 1</td>
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<tr>
<td>Feb 6</td>
<td>Unit 4: Introduction to Notating Meter and Rhythm</td>
<td>Homework 2 Due, Response 2 Due</td>
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<td>Feb 8</td>
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<tr>
<td>Feb 13</td>
<td>Unit 5: Introduction to Notating Pitch</td>
<td>Homework 3 Due, Quiz 1, on units 1-3</td>
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<td>Feb 15</td>
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<tr>
<td>Feb 22</td>
<td>Unit 6: Movable Tonic</td>
<td>Homework 4 Due, Quiz 2, on unit 4</td>
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<td>Feb 27</td>
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<td>Response 3 Due</td>
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<tr>
<td>Mar 1</td>
<td>Unit 7: Key Signatures</td>
<td>Quiz 3, on unit 5</td>
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<td>Mar 6</td>
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<td>Response 4 Due</td>
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<td>Mar 8</td>
<td>Unit 8: Intervals</td>
<td>Homework 5 Due</td>
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<td>Mar 13</td>
<td>SPRING BREAK</td>
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<td>Mar 15</td>
<td>WOOOOO</td>
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<td>Mar 20</td>
<td>Unit 9: Compound Meter</td>
<td>Homework 6 Due, Quiz 4, on units 6-7</td>
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<tr>
<td>Mar 22</td>
<td>Unit 10: Minor Keys (and modes)</td>
<td>Homework 7 Due, Response 5 Due</td>
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<td>Mar 27</td>
<td>Unit 15+16: Texture +Timber</td>
<td>Homework 8 Due, Quiz 5, on unit 8</td>
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<tr>
<td>Mar 29</td>
<td>Unit 13: Harmony</td>
<td>Quiz 6, on unit 9</td>
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<td>April 3</td>
<td>Unit 13a: Harmonic Syntax</td>
<td>Homework 9 Due, Response 7 Due</td>
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<td>April 5</td>
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<td>Quiz 7, on unit 10</td>
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<td>April 10</td>
<td>Unit 14: Melody</td>
<td>Homework 10 Due, Quiz 8, on units 11-12</td>
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<td>April 12</td>
<td>Unit 14b: Melodic Syntax</td>
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<td>April 19</td>
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<td>Homework 11 Due</td>
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<td>April 24</td>
<td>Unit 17: Form</td>
<td>Response 8 Due</td>
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<td>April 26</td>
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<td>Quiz 9, on unit 13</td>
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<td>May 1</td>
<td>Review</td>
<td>Response 9 Due</td>
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<td>Homework 12 Due</td>
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Final Exam: TBA, but there certainly will be one

**OWL Assignment Tips:**

All OWL Assignments are timed, mostly for 20 minutes. Most questions will allow multiple answers. I will post a pdf of potential (and some actual) questions before each homework is due. Only start the OWL assignment when you feel comfortable with the assignment’s overall subject matter. If you run into any issues (e.g., your computer explodes in the middle of an assignment) email me and the TAs, and we'll figure out a good solution.

**TAs:** Greg Mascherino <gmascher@umass.edu> and Nick Suosso <nsuosso@umass.edu>

**Students:** A-La Le-Z

**last names:**