**MUS 101: Theory of Music I**

This course serves as an introduction to collegiate-level music theory. Topics covered in this course include an in-depth exploration of the vocabulary of music, acoustics, and musical notation. We will also review fundamentals of Western tonality (intervals, meter, scales, chords, harmonization).

Coursework includes guided analysis of music and composition of short exercises in prescribed styles.

**Prerequisites**
- A laptop computer (macOS, Windows, Linux, or ChromeOS)
- No textbook is required for this class; materials will be provided by the instructor
- A pencil, eraser, and manuscript paper (available to print here)
- Computer notation software (see tech requirements below)

**Materials**

**Grading**
- **Assignments**
  - Weekly **Homework Assignments** are posted on the course website but may submitted online or on paper. **Handwritten assignments must be done in pencil** (or face a grade penalty).
  - **Due Mondays** at the beginning of class (unless otherwise specified); **Late HW assignments** are not accepted.
  - **Drops**: The lowest two grades are dropped.
  - **Graded** using the following scale:
    - 4 - Mastery: no/few errors (A-level work, 100%)
    - 3 - Meets Standard: no major errors (B-level work, 89%)
    - 2 - Progressing: significant major errors (C-level work, 79%)
    - 1 - Needs Support: Partial knowledge; confusion - highly suggest tutoring (D-level work, 69%)
    - 0 - No Attempt/Well Below Standards: No evidence of learning, work does not make sense; Incomplete (F-level work, 0%)
- **Quizzes**
  - Occur approximately every two weeks on Monday or Friday. You will have the weekend to complete them.
  - **Format**: Quizzes are timed, online, and open-book.
  - **Grading**: Quizzes are curved. The lowest grade is dropped.
- **Checks/Drills**
  - Comprehension questions due each week (10 points each). You may resubmit them unlimited times before the deadline. Accepted up to 1 week late (slight grade penalty).
  - **Drills** allow you to show mastery of practical skills (20 points each). Deadlines are suggested: resubmissions accepted until last day of classes.
- **Attendance**
  - 5%

Course grades are calculated from the following components:
- **Homework** - 30%
- **Quizzes** - 25%
- **Final Project** - 25%
- **Checks/Drills** - 15%
- **Attendance** - 5%

A **final project** will assess the skills learned throughout the semester. Due during finals week.

There is no final exam.
For a disability-reader friendly syllabus, please click here [URL].

Please remember a disability can be temporary or permanent. It can be hidden or visible. It can be developmental, physical, or mental.

Students who require special accommodations due to disability MUST contact the disability office to establish reasonable accommodations. I will happily discuss the process with you if needed.

I cannot assist with accommodation as I am not a medical professional. FERPA/HIPAA guidelines forbid me to discuss your medical information without your consent.

- Printouts of any class materials will be provided as needed without accommodation.
- Retroactivity: Disability accommodations cannot be retroactively applied. You should contact the disabilities office ASAP following diagnosis.

Academic dishonesty of any kind is absolutely prohibited in this course. The instructor reserves the right to determine proper disciplinary action for any instance of academic dishonesty (including giving a zero on an assignment or F for a course grade). Penalties will be applied to the person who copied and the person who provided the example to copy. All instances of academic dishonesty will be reported, which can lead to suspension or expulsion from the University.

What counts as academic dishonesty?

- **Cheating:** Sharing or copying homework/test answers with others.
- **Self-plagiarism:** Copying your own work for classes without proper permission or citation, recycling homework assignments (even for the same class) without proper permission from the instructor.
- **Plagiarism:** Copy-pasting text, music, lyrics, without proper attribution ("citation") or permission or passing others’ work as your own.
- **Deceit:** Using fake articles or journals; modifying font sizes, page layout, music length, musical effects, etc. in order to thwart assignment requirements.
- **Contract services:** Paying someone to write essays and music, or complete assignments for a class.

Preventing academic dishonesty

- Do your own work: do not share your work or answers with anyone.
- Any work you submit for a grade must be newly written/composed unless you have instructor permission to sample, rearrange, or reuse. If there’s ever any doubt, ASK.
- A good rule of thumb is this: Whenever you consciously borrow any important element from someone else, any sentence, any colorful phrase or original term, any plan or idea—say so, either in a footnote, bibliography, or parenthesis (from “Academic Honesty in the Writing of Essays and Other Papers,” Carleton College, 1990).

ACADEMIC MISCONDUCT

ATTENDANCE

You are given three free absences. This means you can nurse your cold, sleep in, or take a long weekend vacation - no questions asked. Any absence beyond 3 will be worth 0.5% of your attendance grade.

- If you think you may have COVID (due to symptoms or contact with someone who does), the flu, or other contagious illness: STAY HOME.
- All quizzes are online. There is no class on quiz days.
- Please don’t be late. It is distracting and you will miss materials.
- If I see that you are not actively engaging in class or are consistently late, I will reach out to you personally. If the pattern continues, I will then reach out to your advisor/Dean.

Despite your attendance, you are still responsible for class materials, assignments, and deadlines as stipulated in the course schedule.

If an illness/disability leads you to have to take time off, or causes you to be consistently late, you MUST contact the office of disability services for an accommodation.

ACADEMIC MISCONDUCT

You may use notes, the internet, or other resources while completing work in this class but must work independently (no chatting, messaging, forums).

COURSE CALENDAR FALL 2021

COURSE SYLLABUS · MUS 101: THEORY OF MUSIC I · FALL 2021 · PAGE 2
### Week 1

**Aug 30** Introduction to Music & Music Theory

**Lesson Objectives:**
- Introduction to music as a philosophical and cultural practice encompassing sound, emotion, and behavior.
- Identification of basic components of musical sound: pitch, texture, duration, timbre, form.
- Understanding of a brief history of music theoretical study and its utility in musical practice and analysis.
- Critical assessment of differences between sound, silence, music, language, and noise.

**Class Activities:**
- Discussion of music theory & ear training, and context within students' educations.
- Comparison of music theory versus musicology and ethnomusicology.
- Student-led discussion regarding musical features ("What is music? What features does music have?") while listening and assessing various musical examples.

**Readings:**
- van Dillen: *Music Theory Introduction, Music Theory Tools*
- Greenberg: "What is music exactly?"
- Ludden: "Is music a universal language?"

**Week 2**

**Sep 8** Basic Acoustics

**Lesson Objectives:**
- Understanding of the basic nature of sound as vibration and how it propagates through different media.
- Introduction to visual representations of sound on a spectrogram, time-frequency graph, and oscilloscope trace.

**Class Activities:**
- Discussion and definition of the physical properties of sound and how it is created.
- Aural and visual comparison of sine waves with different frequencies, periods, amplitudes.
- Comparison of different sounds/instruments on spectrograms, oscilloscopes, and time/frequency graphs.
- Discussion of vibration, frequency, and tension using strings demonstration.

**Readings:**
- (Videos) - Project Studio Handbook:
  - "What is Sound?"
  - "Waveform Diagrams"
- Physclips - "Pitch, Loudness, and Timbre"
- SmackMyPitchUp - "What is Sound?"

### Week 3

**Sep 1** Introduction to Notation Systems

**Lesson Objectives:**
- Understanding of a brief history of various notation systems and the main sonic aspects they annotate.
- Learning the definitions of etic vs. emic and prescriptive vs. descriptive notations and application to various notations.
- Critical assessment of the difference between an aural cue and its visual representation.
- Assessing the functionality of different notation system(s) according to specific goals (i.e. performativity vs. representation)

**Class Activities:**
- Discussion and definition of frequency and pitch.
- Demonstration of the combination of two sounds (inducing beats) and harmonic combinations.
- Understanding the concept of beats and how they are used to tune an instrument.
- Use of an oscilloscope and spectrogram to compare different sounds.

**Readings:**
- Timeline on Notation History
- Introduction to Notation
- Global Notation: "Specifying the information you want"
- Rowbury:
  - "What is [notation] good for and why do we need it?"
  - "The song is not the sheet music!"
  - "Using sheet music to teach and learn songs"

### Week 4

**Sep 3** Basics of Frequency and Pitch

**Lesson Objectives:**
- Defining the difference between sinusoidal and complex waves. Introduction to harmonic sounds.
- Visualization of harmonic sounds on a spectrogram, frequency graph, and oscilloscope.
- Students will understand how frequency relates to the aural concept of pitch.

**Class Activities:**
- Discussion and definition of frequency and pitch.
- Demonstration of the combination of two sounds (inducing beats) and harmonic combinations.
- Understanding the concept of beats and how they are used to tune an instrument.
- Use of an oscilloscope and spectrogram to compare different sounds.

**Readings:**
- Physclips - "Frequency and Pitch"
- SmackMyPitchUp - "Pure Tones and Complex Sounds"
- "Beats"
### WEEK 3
#### SEP 13 15
**Staff Pitch Notation**

**Lesson Objectives:**
- Notation, naming, and playing (on a keyboard) of pitch in Western staff notation using treble, alto, tenor, and bass clef.
- Naming of notes using American note notation, octave notation, European letter names, or integer notation.
- Identification of notes on a piano keyboard.
- Understanding of the difference between pitches, octaves, chroma, and pitch classes.

**Class Activities:**
- Discussion of the symbology of pitch in Western staff notation.
- Melodic transcription or performance of short excerpts of music from different genres and time periods in various notations.

**Readings:**
- Music Theory for the 21st Century Classroom - "Basic Concepts"
- Music Theory for Musicians and Normal People - "Notation: Pitch"
- Cook: "Moveable C-Clef; Other Clefs"
- Open Music Theory: "Pitch (class)"
- Dolmetsch Online - "Notes and Keys in Various Languages"
- UNSW Music Acoustics - "Notes names, MIDI numbers, and frequencies" (just look at chart)

#### SEP 17
**Quiz 1: Materials from Weeks 1 and 2**

### WEEK 4
#### SEP 20
**Tonality and Scale Types**

**Lesson Objectives:**
- Familiarity with the concepts of dissonance and consonance, tension and release, tonicity and centricity.
- Learning about tonal structures in various non-Western genres (focus: Indian raga, gamelan patet, Arabic maqam).
- Comparing various uses of the term "tonality" and understanding the difference between tonal and non-tonal (or atonal) music.
- Identifying a tonic "stability" for tonal melodies.
- Distinction between different scale types (number of notes, steps/semitones) and tonal centricity.

**Class Activities:**
- Discussion and demonstration of the concepts of tonality and tonal centers.
- Discussion and demonstration of scales and subsets within a specific genre.
- Scalar analysis of different melodies.

**Readings:**
- Music Theory Mind & Culture: 2.1 Schemas & Tonality
- Open Music Theory: "Collections and Scales"
- Raag Hindustani: "What is a Raga?"
- Javanese Gamelan: "Javanese Laras"
- Maqam World: "Arabic Maqamat"

#### SEP 22
**Major Scales and Key Signatures**

**Lesson Objectives:**
- Writing a major scale beginning on a given note.
- Writing the key signature for a given major key in treble and bass clef.
- Identifying the major key represented by a given key signature or of a simple melodic segment.

**Class Activities:**
- Discussion and definition of the major scale, major key signatures, their usage, and their proper notation.
- Identification of key signatures for music from different genres and time periods.

**Readings:**
- Music Theory for the 21st Century Classroom: "Major Scales and Key Signatures"
- Open Music Theory: Key Signatures

#### SEP 24
**Minor Scales and Key Signatures (see week 5 for details)**
Lesson Objectives:
• Writing the three minor scales beginning on a given note.
• Writing the key signature for a given minor key in treble and bass clef.
• Identifying the minor key represented by a given key signature or of a short melodic segment.
• Identifying parallel and relative key relationships between major and minor scales.

Class Activities:
• Discussion and definition of the minor scales, minor key signatures, their usage, and their proper notation.
• Identification of key signatures for music from different genres and time periods.
• Derivation of circle of fifths and relationships between parallel and relative major and minor scales.

Readings:
- Music Theory for the 21st Century Classroom: “Minor Scales and Key Signatures”
- Music Theory for Musicians and Normal People: “Relative vs. Parallel Keys”
- Handout on scales and keys
### WEEK 7

**October 11**  
**Instrument Families**

**Lesson Objectives:**
- Student will be able to categorize different instruments into families (Orchestral and Sachs-Hornbostel).
- Student will be able to surmise an unknown or hypothetical instrument’s family based on sound or playing mechanism.
- Student will be familiar with how sound waves are propagated by different playing mechanisms and effector systems (including physiological ones).

**Class Activities:**
- Visualize instrument performance (on spectrogram/oscilloscope) and compare based on type, material, playing mechanism.
- Discussion of SH system: compare and contrast various instruments and discuss instruments with ambiguous/multiple categorizations (i.e. voice, loudspeakers).

**Readings:**
- **Live About:**
  - “Classification System of Musical Instruments.”
  - “Classification of Musical Instruments: the Sachs-Hornbostel System.”
- **UCSD Electronic Studios:** “A Look at Un-electronic Instruments.”
- Peruse through Vienna Symphonic Library Instrumentology.
- Peruse through All the Musical Instruments of the World.

**October 13**  
**Melody and Texture**

**Lesson Objectives:**
- Understanding of the fundamental concepts of texture, melody, countermelody, and accompaniment.
- Identification different types of texture.
- Learning the basic features of melodic writing: motive, phrase, contour, range.

**Class Activities:**
- Discussion and definition of different types of texture.
- Identification of texture in musical examples from different genres and time periods.
- Identification of general contour for melodic segments.

**Readings:**
- **Music Appreciation:**
  - “Melody.”
  - “Motive.”
- Rumery: “Melodic Analysis.”
- **Music Theory Academy:**
  - “Texture.”
  - “Imitation.”
  - “Musical Structures Part 1.”

**October 15**  
**Quiz 3: Materials from Weeks 5 and 6**

### WEEK 8

**October 18**  
**October 20**  
**Duration & Rhythm**

**Lesson Objectives:**
- Understanding of the concept of rhythm and how it is present in ambient sound, speech, and music.
- Familiarity with IOIs and ISIs.
- Familiarity with rhythmic symbols including: note shapes, rests, dots, ties.
- Proficiency with basic rhythmic notation values (including exploration of British naming equivalents).

**Class Activities:**
- Discussion of Vedic, Gregorian, and other forms of chant to compare rhythm in music and language.
- Discussion of the symbology of rhythm in staff notation (including a short history).
- Rhythmic transcription of short excerpts of music from different genres and time periods.

**Readings:**
- **MusicTheory.Net Tutorial:**
  - “Note Durations.”
  - “Rest Durations.”
  - “Dots and Ties.”
- **Teoria.com:**
  - “Note Values.”
  - “Values Shorter than a Beat.”

**October 22**  
**Introduction to Musical Meter** (see week 9 for details)
## COURSE SCHEDULE, CONTINUED

### WEEK 9

**Nov 25**

**Lesson Objectives:**
- Understanding of the concept of beat and meter and identification of isochronous rhythmic layers and their interrelations (hypermeter, subdivision, beat, measure).
- Description of the meter of a piece by ear or given a specific time signature.
- Notation of various musical rhythms within different metrical scaffoldings.
- Understanding of the relationship between movement and beat in isochronous meters.
- Understanding of different accent patterns and distinction between simple/compound and complex metrical structures.

**Class Activities:**
- Discussion and definition of rhythm, beat, and meter and different categorizations.
- Aural analysis of rhythm, beat and meter in different types of music. Conducting of musical excerpts.
- Marching and dancing demonstrations for various meter types.
- Comparison of aural/felt metrical layers to notation.

**Readings:**
- Handout on Rhythm & Meter
- Playlist on various musical dances
- Music Crash Courses: "Beat & Tempo" and "Pitch Interactions with Beat & Meter" (top only)
- "Music for the 21st Century Musician: Basics of Meter"
- "Music Theory for Musicians and Normal People: Notation: Meter"
- "Beaming" and "Complex Meter"

**Nov 27**

**Quiz 4: Materials from Weeks 7 and 8**

### WEEK 10

**Nov 3**

**Lesson Objectives:**
- Determining the interval between two written notes or using a piano keyboard.
- Writing a note at the given interval above or below a given note.
- Understanding the relationship between diatonic intervals and frequency ratios

**Class Activities:**
- Identification and notation of intervals between two given notes.
- Identification of intervals in short musical segments
- Demonstration of interval ratios using a monochord.

**Readings:**
- Handout on Interval Ratios
- Open Music Theory V. 2: Intervals

### WEEK 11

**Nov 8**

**Lesson Objectives:**
- Understanding of the concept of tuning systems and temperaments (Namely 12-TET, Just intonation, Meantone, Pythagorean tunings).
- Understanding of the basis of 12-TET tuning (including definitions of cents and semitones).
- Basic understanding of tuning discrepancies based on harmonics and interval ratios.
- Exposure to tuning variations in Blues, Indian Raga, Javanese Gamelan, and Arabic Maqamat.

**Class Activities:**
- Demonstration of different tuning systems and temperaments.
- Calculation of intervals using just intonation ratios - discussion of tuning discrepancies.

**Readings:**
- Music Crash Courses: "Tuning Systems"
- A Feeling for Harmony: "Just Intonation"

**Nov 10**

**Lesson Objectives:**
- Familiarity with the concepts of dissonance and consonance in regards to harmony, and with common harmonic terminology such as tertial, quartal, triad and tetrads.
- Ability to write and identify a major, minor, augmented and diminished triads using a given note as root, third, or fifth.
- Learning about open versus closed chord voicing.
- Learning about chord symbol and slash notation.

**Class Activities:**
- Playing and discussion of various harmony types and voicing.
- Deriving triads in major and minor keys.
- Writing a given type of triad using a given note as root, third, or fifth.
- Identifying or writing triads using lead sheet notation.

**Readings:**
- Music Theory for the 21st Century Classroom: "Introduction to Triads" and "Lead Sheet Symbols"
- "Quartal/Quintal/Secundal Harmony"
- MusicTheory.Net: "Introduction to Chords" and "Voicing Chords"

**Nov 12**

**Quiz 5: Materials from Weeks 9 and 10**
### Week 12

**November 15**  
**Seventh Chords**

**Lesson Objectives:**
- Ability to write and identify a seventh chord using a given note as root, third, fifth, or seventh.
- Focus on: MM, Mm, mm, dm, dd, mM chords.
- Derivation of seventh chords from a major and minor scale.

**Class Activities:**
- Deriving sevenths in major and minor keys

**Readings:**
- Music Theory for the 21st Century Classroom: "Introduction to Seventh Chords"
- How Music Works: "Other Inversions"

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**November 17**  
**Diatonic Roman numerals**

**Lesson Objectives:**
- Students will be familiar with the names of individual scale degrees (tonic, supertonic, etc.)
- Student will be able to derive the Roman Numerals in a major or minor key
- Student will be able to label chords with the proper Roman Numeral in major and minor keys

**Class Activities:**
- Discussion and definition of the concept of Roman numeral analysis
- Writing and analyzing chords from Roman numeral notation

**Readings:**
- Music Theory for the 21st Century Classroom: "Roman numeral Chords Symbols"
- "Diatonic chords in major"
- "Diatonic chords in minor"

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**November 19**  
**Chord Inversion and Slash Notation**

**Lesson Objectives:**
- Ability to realize figured bass symbols.
- Ability to notate triads and 7th chords with figured bass or lead sheet notation.
- Ability to write or identify the inversion of a given triad or seventh chord using lead sheet or figured bass notation.

**Class Activities:**
- Discussing the history of figured bass notation and its utility.
- Writing triads or seventh chords in different inversions.
- Labeling triads and seventh chords using slash or figured bass notation.
- Identifying a triad and seventh in different inversions using both figured bass and slash-chord notation

**Readings:**
- Music Theory for the 21st Century Classroom: "Historical Context: Figured Bass"
- "Figured bass inversion symbols"
- "Inverted Triads"

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**Week 1)**

**November 29**  
**Introduction to Melodic Harmonization**

**Lesson Objectives:**
- Student will be able to harmonize simple melodies using Tonic, Subdominant, and Dominant triads in major keys.
- Student will learn how to create different harmonization textures for keyboard writing (focus on: arpeggios, Alberti bass, block-chord textures)
- Student will become familiar with the notion of implied harmony
- Student will learn the concept of harmonic rhythm

**Class Activities:**
- Discussion of the theory behind melodic harmonization

**Readings:**
- Music Theory Academy: Primary Chords
- Hub Guitar: Basics of Harmonizing a Melody
- Art of Composing: How to compose music: Melody or Harmony First?
- Music Theory for the 21st Century Classroom: "Chorale Texture"
- "Arpeggiated Accepts"
- "Block Chord Accompaniments"

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**December 3**  
**Quiz 5: Materials from Weeks 11 and 12**
## How to succeed in this class

Getting a good grade in this class starts today, with **good habits** and a **positive attitude**!

**Good Habits.** Any class takes effort: don't procrastinate that effort to the last few weeks!
- **Keep a calendar.** In addition to your class meetings, schedule time to work on homework assignments and other projects.
- **Stay organized.** Take time now to set up a folder system for files. Use filenames, color coding, whatever helps.
- **Don't procrastinate.** Respond to emails right away. Schedule to-do items and get them done. Submit your homework on time, and redo them right away when you get them back!

**Positive Attitude.** Don't just go through the motions… make this class work for you and help it work for others!
- **Don't just attend; participate.** Set other activities aside and focus on the topic. Ask questions… or help answer them!
- **Keep an open mind.** If a particular lesson doesn't feel applicable, get creative and find ways you can apply it.
- **Challenge yourself.** Don't just do the bare minimum… experiment, dig deeper, analyze and create!
- **Communicate.** Frustrated? Curious? Have a suggestion? Let the instructor know! Make them earn their salary!

The most successful students are self-starters… those who have ideas and dreams of what they want to do and make their education work for them. Don't be an unquestioning consumer: make big plans and take big risks!
Frequently Asked Questions

Q. What will I learn this semester?
A. Upon successful completion of this course, you will have:
   • An introductory understanding of sound including acoustic, perceptual, and notational correlates of frequency, loudness, timbre, and duration.
   • Fluency in reading and writing western staff notation including examples in treble, alto, tenor, and bass clefs.
   • Fluency in Western musical fundamentals including meter, scales, intervals, and chords.
   • An introductory understanding of melody and harmonization.
   • Basic proficiency in using music notation software.

Q. What do I need for class?
A. All course materials, including this syllabus, assignments, handouts and readings can be found on the course website at http://anon.edu/cms. There is no textbook required for this course; the instructor will provide online resources for readings, reference, and review. You should bring materials for taking careful notes. Depending on your learning preferences, this may be manuscript paper and a pencil, a tablet and stylus, or a laptop computer.

Q. Can I turn homework in late? And once I get it back, can I redo it?
A. Depends on the assignment. Reading checks can be late, assignments cannot. You have two assignment drops. We all have things that come up unexpectedly; if you’re sick, or your computer crashes, the late/drop policy allows you to take an extra day to finish up or focus on the next assignment. But it doesn’t mean you should put your work off until you feel like doing it! Fundamental skill drills can be redone because I want you to learn the material, and not be punished for initially misunderstanding it. However, it’s best to redo it immediately... putting the redos off until the end of the semester in a last-minute attempt to improve your grade will be more difficult (because you may have forgotten the material) and will only increase your stress as you prepare for finals!

Q. Do I need notation software?
A. Yes! If you are already accustomed to using a particular program such as Sibelius or Finale, you are welcome to continue to use it for assignments in this class. If you do not have a preference, MuseScore (http://musescore.org) is recommended, as it is free and cross-platform.

Q. What is your attendance policy?
A. You have three free absences. After three absences, your attendance grade will be docked.
   Students who have low attendance in this class have historically earned much lower grades; if you want to succeed in this class, it is imperative that you attend regularly.

Q. What is your policy on cheating?
A. Plagiarism — passing someone else’s work as your own, whether through copying homework or test answers or by having someone else complete your work for you — is absolutely prohibited; consequences range from getting a 0 on the plagiarized assignment to immediately failing the course. If you are unsure if what you are planning constitutes plagiarism, ask first!

Q. What if I need help outside of class?
A. Obviously, if you are having a problem, the best thing to do is to ask during class, so that other students can benefit from the answer.
   However, if you need one-on-one guidance, I am happy to help! Contact me via email and we can set up a virtual or in-person appointment where I can provide assistance.