

**Fundamentals of Musicianship II Topical Outline**Week 1

Vibrating Systems I: Simple Harmonic Motion II; Frequency of Vibrating Systems; Simple Vibrating Systems; Harmonic Oscillator; Modes of Vibration

Vocabulary 1: Simple Part Forms – Rounded Binary and Ternary

MAX/MSP Project 6

Aural Training Quiz 13: Rhythm and Modulating Melody

Literature Module 13

Listening Quiz 13

Week 2

Vibrating Systems I: A Taxonomy of Vibrating Systems; One-Dimensional Vibrating Systems; Two-Dimensional Vibrating Elements; Resonance II; Transiently Driven Vibrating Systems

Vocabulary 2: Part Forms – Large Scale

MAX/MSP Project 7

Aural Training Quiz 14: Rhythm, Counterpoint, and Modulating Melody

Literature Module 14

Listening Quiz 14

Week 3

Composition and Analysis I: Guido's Method; Methodology and Composition

Vocabulary 3: Mass, Motet, Rondeau, Virelai

Notation/Sequencing Project 2

Aural Training Quiz 15: Rhythm, Counterpoint, and Modulating Melody

Literature Module 15

Listening Quiz 15

Week 4

Composition and Analysis II: MUSIMAT (Programming Language for Music); Program for Guido's Method

Vocabulary 4: Madrigal, Chanson, Frottola, Toccata, Ricercare, and Milhaud Counterpoint I

MUSIMAT Project 1

Aural Training Quiz 16: Rhythm, Counterpoint, and Modulating Melody

Literature Module 16

Listening Quiz 16

Week 5

Composition and Analysis III: Music Representation Systems; Delegating Choice; Randomness

Vocabulary 5: Sonata Principle I

Notation/Sequencing Project 3

Aural Training Quiz 17: Rhythm and Large-Scale Harmonic Motion

Literature Module 17

Listening Quiz 17

Week 6

Composition and Analysis IV: Chaos and Determinism; Combinatorics

Vocabulary 6: Serialism I, Milhaud Counterpoint II

Notation/Sequencing Project 4

Aural Training Quiz 18: Rhythm and Non-Tonal Melody

Literature Module 18

Listening Quiz 18

Week 7

Composition and Analysis V: Atonality; Composing Function

Vocabulary 7: Serialism II, Milhaud Counterpoint III

Notation/Sequencing Project 4 continued

Aural Training Quiz 19: Rhythm and Non-Tonal Melody

Literature Module 19

Listening Quiz 19

Week 8

Composition and Analysis VI: Traversing and Manipulating Musical Materials; Stochastic Techniques; Probability  
Vocabulary 8: Sonata Principle II and Jazz I  
MAX/MSP Project 8  
Aural Training Quiz 20: Rhythm and Non-Tonal Melody  
Literature Module 20  
Listening Quiz 20

Week 9

Composition and Analysis VII: Information Theory and Expectation;  
Vocabulary 9: 18<sup>th</sup> Century Counterpoint, Fugal Process, and Jazz II  
Notation/Sequencing Project 5  
Aural Training Quiz 21: Rhythm and Large-Scale Harmonic Motion  
Literature Module 21  
Listening Quiz 21

Week 10

Composition and Analysis VIII: Form in Unpredictability; Monte Carlo Methods  
Vocabulary 10: Indeterminacy and Jazz III  
MAX/MSP Project 9  
Aural Training Quiz 22: Rhythm and Popular Tonic-Subdominant-Dominant Progressions  
Literature Module 22  
Listening Quiz 22

Week 11

Composition and Analysis IX: Markov Chains; Causality and Composition  
Vocabulary 11: Invertible Counterpoint: Milhaud & Bach  
Notation/Sequencing Project 6  
Aural Training Quiz 23: Rhythm and Substitute Tonic-Subdominant-Dominant Progressions  
Literature Module 23  
Listening Quiz 23

Week 12

Composition and Analysis X: Learning; Music and Connectionism  
Vocabulary 12: Musique Concrète and Synthetic Music  
MAX/MSP Project 10  
Aural Training Quiz 24: Rhythmic and Non-Rhythmic Aural Analytic Structures  
Literature Module 24  
Listening Quiz 24

Week 13

Composition and Analysis XI: Representing Musical Knowledge  
Vocabulary 13: Musikdrama, Gesamtkunstwerk, Friedrich Nietzsche, Arthur Schopenhauer, and Terry Riley  
Notation/Sequencing Project 7  
Aural Training Quiz 25: Large Scale Rhythmic and Harmonic Structures  
Literature Module 25  
Listening Quiz 25

Week 14

Summary: Calculating Beauty  
Final Exam Prep

Week 15

Final Projects