



# WOLF PACK MUSIC PROGRAM DISTANCE LEARNING



Hello,

The following instructions for Music Periods 1, 2, 3, 5, and 6 under Mr. Raman.

Please go at your own pace and contact me for questions concerning assignments.

Office Hours: Monday-Friday 11 AM-1 PM

Email: [Jraman@TUSD.net](mailto:Jraman@TUSD.net)

Remind 101: Text or use Remind App

## Piano

Send a Text: 81010

Text this message: @mrramans

## Jazz

Send a Text: 81010

Text this message: @g68e4k

## Orchestra

Send a Text: 81010

Text this message: @g6dk88

## Band

Send a Text: 81010

Text this message: @fc8g4

### *Materials Needed:*

- Check box page: Music Theory Chapter 4
- Music Theory Chapter 4 print out (Pages 3-16)
- Pencil

Please Turn in (write on packet or separate sheet) the Assignments 4.1 and 4.2(pages 15 and 16) with the following written in the top right-hand corner:

Last, First Name

Period #

Dates accomplished



## Check Box Page

### Day 1. Chords

#### Chapter 4

- ☐ Read Pages 3 and 4
- ☐ **Worksheet Page 15:**  
**Assignment 4.1: Only**  
**Numbers: 1-5.**

### Day 2. Chords

#### Chapter 4

- ☐ Read Pages 5 and 6
- ☐ **Worksheet Page 15:**  
**Assignment 4.1: Only**  
**Numbers: 6-10.**

### Day 3. Chords

#### Chapter 4

- ☐ Read Pages 7-8
- ☐ **Worksheet Page 15:**  
**Assignment 4.1: Only**  
**Numbers: 11-15.**

### Day 4. Chords

#### Chapter 4

- ☐ Read Pages 9, 10, and 11
- ☐ **Worksheet Page 15:**  
**Assignment 4.1: Only**  
**Numbers: 16-20.**

### Day 5. Chords

#### Chapter 4

- ☐ Read Pages 12, 13, and 14
- ☐ **Worksheet Page 16:**  
**Assignment 4.2: Only**  
**Numbers: 1, 2, 11, 12, 21,**  
**22, 31, and 32.**

## CHAPTER 4

### Chords

#### TOPICS

Harmony  
Chord  
Triad  
Tertian  
Root  
Major Triad  
Minor Triad  
Diminished Triad  
Augmented Triad

Primary Triads  
Triad Position  
Root Position  
First Inversion  
Second Inversion  
Seventh Chords  
Organum  
Figured Bass

Roman Numerals  
Simple Position  
Third Inversion  
Realization  
Macro Analysis  
Circle Progression  
Leading-Tone Progression  
Lead Sheet or Fake Sheet

#### IMPORTANT CONCEPTS

In the previous chapter, pairs of pitches were assigned specific names for identification purposes. The phenomenon of tones sounding simultaneously frequently includes groupings of three, four, or more pitches. As with intervals, identification names are assigned to larger tone groupings with specific symbols.

#### Harmony

*Harmony* is the musical result of tones sounding together. Whereas melody implies the linear or horizontal aspect of music, harmony refers to the vertical dimension of music.

#### Chord

A *chord* is a harmonic unit with at least three different tones sounding simultaneously. The term includes all possible such sonnetries.

Figure 4.1



#### Triad

Strictly speaking, a *triad* is any three-tone chord. However, since western European music of the seventeenth through the nineteenth centuries is tertian (chords containing a superposition of harmonic thirds), the term has come to be limited to a three-note chord built in superposed thirds.

#### Triad Root

The term *root* refers to the note on which a triad is built. "C major triad" refers to a major triad whose root is C. The root is the pitch from which a triad is generated.

#### Major Triad

Four types of triads are in common use. They are identified by the quality names major, minor, diminished, and augmented.

A *major triad* consists of a major third and a perfect fifth.

Figure 4.2



#### Minor Triad

A *minor triad* consists of a minor third and a perfect fifth.

Figure 4.3



#### Diminished Triad

A *diminished triad* consists of a minor third and a diminished fifth.

Figure 4.4



#### Augmented Triad

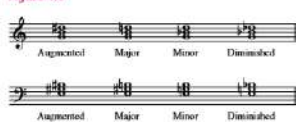
An *augmented triad* consists of a major third and an augmented fifth.

Figure 4.5



Figure 4.6 demonstrates how each of the four types of triads can be constructed. Each triad includes a root, a third, and a fifth.

Figure 4.6



#### Triad Stability

A triad that is a combination of the strongest intervals is the most stable. The perfect fifth is by far the strongest interval, and this accounts for the superior stability of the major and minor triads.

Strongest and most stable: Major triad  
Strong and quite stable: Minor triad  
Weak and unstable: Diminished triad  
Weak and unstable: Augmented triad

#### Triad Names

You can construct a triad on any of the scale degrees. The triad has the same function name as the individual pitch. Both the pitch C and the C major triad are the tonic in Figure 4.7.

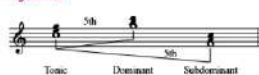
Figure 4.7



#### Primary Triads

The triads built on the tonic, subdominant, and dominant are often referred to as the *primary triads* because of their strong relationship to each other. The tonic stands in the center of the tonal system, with the dominant a perfect fifth above and the subdominant a perfect fifth below.

Figure 4.8



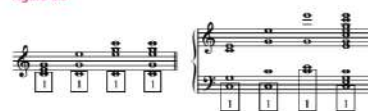
#### Triad Position

*Triad position* identifies the note of the chord that appears as the lowest-sounding pitch of the harmony. Any of the three notes of the triad can appear as the lowest-sounding pitch.

#### Root Position

No matter what the arrangement of the third and fifth factors, the triad is in *root position* if the root of the triad is the lowest-sounding pitch. All the triads in Figure 4.9 are in root position.

Figure 4.9



#### Triad Inversion

An *inversion* of a triad occurs when the root is not the lowest-sounding pitch.

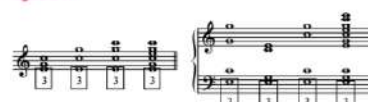
Figure 4.10



#### First Inversion

No matter what the arrangement of the root and fifth factors, the triad is in *first inversion* if the third factor is the lowest-sounding pitch.

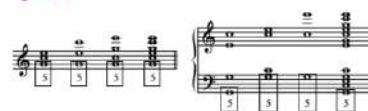
Figure 4.11



#### Second Inversion

No matter what the arrangement of the root and fifth factors, the triad is in *second inversion* if the fifth factor is the lowest-sounding pitch.

Figure 4.12





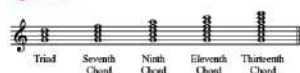
# WOLF PACK MUSIC PROGRAM DISTANCE LEARNING



## Other Tertian Chords

Triads by no means exhaust the possible tertian sonorities. We can continue adding thirds to tertian chords, resulting in seventh chords, ninth chords, eleventh chords, and thirteenth chords (discussed in detail in the latter chapters of this volume and in volume 2).

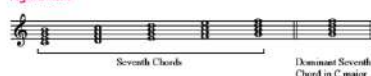
Figure 4.13



## Seventh Chords

Although triads are the focus of this chapter, you will also encounter seventh chords when analyzing music. A seventh chord is formed by adding another third above the fifth of a triad. The seventh chord built on the dominant is the most common seventh chord in tonal music (see Figure 4.14).

Figure 4.14



## History

Emerging during the thirteenth century from a composition type known as *organum*, harmony developed gradually during the medieval and Renaissance periods. In the Renaissance period (1450–1600) harmony was the result of the combination of melodic lines, and the study of harmony was a study of the consonant and dissonant relationships between melodic lines.

During the baroque period (1600–1750) the concept of accompanying a melody with chords was developed. The keyboard performer was expected to improvise the accompaniment from a given bass line and a set of symbols used to indicate in a general way the chords to be used. The bass line with its accompanying symbols is called a *figured bass*, and the instruments that play from this part are called the *continuo*. Musicians employed the figured-bass system throughout the baroque period for keyboard accompaniments and keyboard parts for solo songs, solo instrumental compositions, and small and large ensembles.

In 1722 Jean-Philippe Rameau wrote the *Traité de l'harmonie* (*Treatise on Harmony*), which described a theory of harmony. In Book One of this treatise, Rameau discusses the inversion of chords, a concept that profoundly influenced later theoretical writing. Many of the principles presented in this book are direct outgrowths of Rameau's ideas.

## APPLICATIONS

Musicians analyze harmonic elements in music using sets of symbols to identify chord types, function, and relationships. A chord's connection to a key center, or perceived forward motion in a composition, can often be explained through harmonic analysis. Two analytical methods, Roman numeral analysis and macro analysis, are presented throughout this volume as tools for categorizing tonal harmonies and chord relationships.

Symbols are not limited to analysis. Composers and arrangers use both the baroque figured-bass system and modern-day popular music symbols as shorthand systems to reveal harmonic vocabulary to performers.

CHAPTER 4

Page 7

77

## Roman Numeral Analysis

In analysis, Roman numerals are used to distinguish triads based on scale degrees (Arabic numerals with carets are used for scale degrees themselves). Memorize the type of triads that appear on each tone of the major scale and the three forms of the minor scale.

Capital Roman numerals	= Major triads	Examples: I, IV, V
Lowercase Roman numerals	= Minor triads	Examples: ii, iii, vi
Lowercase Roman numerals with °	= Diminished triads	Examples: vii°, vii°
Capital Roman numerals with +	= Augmented triads	Example: III+

Figure 4.15

In the major scale:



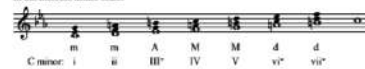
In the natural minor scale:



In the harmonic minor scale:



In the melodic minor scale:



The following chart is a summary of triad types in the diatonic scales:

Scale	Major Triads on	Minor Triads on	Diminished Triads on	Augmented Triads on
Major	I, IV, V	ii, iii, vi	vii°	None
Natural Minor	III, VI, VII	i, iv, v	ii°	None
Harmonic Minor	V, VI	i, iv	ii°, vii°	III+
Melodic Minor	IV, V	i, ii	vii°, vii°	III+

78

PART A

Page 8

## Triad Position Symbols

Root-position triads are indicated with Roman numerals without additional symbols. First-inversion triads are indicated with a superscript '1' to the right of the Roman numeral. Second-inversion triads are indicated with a superscript '2' to the right of the Roman numeral. When triads are reduced to three notes spaced as close together as possible, we say they are in *simple position*.

Figure 4.16



Chords reduced to simple position:



Although '1' and '2' accompany Roman numerals to indicate inversion, they are shorthand symbols to represent intervals above the lowest sounding note. Figure 4.17 illustrates the complete interval figures for triads, along with the abbreviated symbols.

Figure 4.17

Position	Analysis Showing All Intervals Above the Bass Note	Analysis as Simplified for Conventional Use
Root Position	C: C <sub>1</sub>	C: C
First Inversion	C: C <sub>1</sub> <sup>1</sup>	C: C <sub>1</sub>
Second Inversion	C: C <sub>1</sub> <sup>2</sup>	C: C <sub>2</sub>

CHAPTER 4

Page 9

79

## Seventh-Chord Position Symbols

We indicate root-position seventh chords by adding a small superscript '7' to the right of the Roman numeral.

Figure 4.18



Figure 4.19

Position	Analysis Showing All Intervals Above the Bass Note	Analysis as Simplified for Conventional Use
Root Position	C: C <sub>1</sub> <sup>7</sup>	C: V <sup>7</sup>
First Inversion	C: C <sub>1</sub> <sup>1</sup> <sup>7</sup>	C: V <sub>1</sub> <sup>7</sup>
Second Inversion	C: C <sub>1</sub> <sup>2</sup> <sup>7</sup>	C: V <sub>2</sub> <sup>7</sup>
Third Inversion	C: C <sub>1</sub> <sup>3</sup> <sup>7</sup>	C: V <sub>3</sub> <sup>7</sup> or V <sub>3</sub> <sup>7</sup>

## Figured Bass

Figured bass consists of a bass part (single line) with figures (numbered) below to indicate the type of harmony. It is a contrapuntal, intervallic shorthand method of showing the harmony (along with nonharmonic tones). Because this method saved time, musicians employed it throughout the baroque period for keyboard accompaniments and keyboard parts for solo songs, solo instrumental compositions, and small and large ensembles. It also exemplifies the baroque tendency to emphasize the outer voices (soprano and bass) in contrast to the Renaissance tradition of equal voices (soprano, alto, tenor, and bass).

Figure 4.20 is an excerpt from a baroque composition with figured bass.

80

PART A

Page 10

**Figure 4.20**

Cesti: *Bella Clori* (Beautiful Chorus), mm. 185–188.



Modern editions of music are often printed with the figured bass realized. This means that the harmony is filled in according to the figures. Figure 4.21 shows the previous excerpt with a realization of the figured bass.

**Figure 4.21**

Cesti: *Bella Clori* (Beautiful Chorus), mm. 185–188, with figured bass realized.



## Figured-Bass Symbols

As we have seen, the numbers 6 and 1 refer to intervals above the bass note, but they imply others such as 3, 5, or an additional 6 or 4 to fill out the four voices. Figured-bass numbers do not denote specific arrangements; they do not indicate what notes should be placed in a particular voice (soprano, alto, or tenor). Composers of the baroque period could have indicated all intended notes above the bass note—including octaves, thirds, and doublings where they occur—but this would have proved burdensome. In actual practice they show only figures that would specifically define a position (root, first inversion, or second inversion). Thus, 6 clearly designates first inversion from root position (no numbers) and second inversion (6).

Some standard figured-bass symbols along with their realizations are shown in the following table and in Figure 4.22.

Symbol	Meaning	Realizations
None	Triad in Root Position	Short for: $\begin{smallmatrix} 1 & 3 & 5 \\ 5 & 3 & 1 \end{smallmatrix}$ or $\begin{smallmatrix} 1 & 3 & 5 \\ 4 & 2 & 1 \end{smallmatrix}$
6	Triad in First Inversion	Short for: $\begin{smallmatrix} 6 & 4 & 2 \\ 4 & 2 & 6 \end{smallmatrix}$ or $\begin{smallmatrix} 6 & 4 & 2 \\ 3 & 1 & 6 \end{smallmatrix}$
6 4	Triad in Second Inversion	Short for: $\begin{smallmatrix} 6 & 4 & 2 \\ 2 & 7 & 4 \end{smallmatrix}$ or $\begin{smallmatrix} 6 & 4 & 2 \\ 3 & 1 & 6 \end{smallmatrix}$

**Figure 4.22**

Figured bass as it appears originally:



Same figured bass harmonized in simple position:



Same figured bass harmonized in four-part harmony:

Same figured bass with all intervals indicated:

When you are considering triads, note that any figured bass that contains a 6 but not a 4 means first inversion. Any figured bass that contains a 6 and a 4 means second inversion. Sometimes it is necessary to indicate sharps, flats, or naturals above the bass note. These are shown in the following manner:

Symbol	Meaning
#, b, or ♮	A sharp, flat, or natural alone beneath a bass note indicates a triad in root position with the third interval above the bass note sharpened, flattened, or naturalized.
♯, ♭, or ♮	A sharp, flat, or natural below a 6 indicates a first-inversion triad with the third interval above the bass note sharpened, flattened, or naturalized.
♯, ♭, or ♮	Any sharp, flat, or natural sign on either side of a number indicates that this interval above the bass note should be sharpened, flattened, or naturalized depending on the symbol. Remember that accidentals beside numbers do not change the original intent of the numbers themselves.
♯, ♭, or ♮	A slash mark through a number indicates that this interval above the bass note should be raised a half step. It means the same as a sharp sign beside the number. The plus sign (+) also has the same meaning.

If none of these symbols are present, assume that you should follow the key signature in realizing figured-bass symbols.

**Figure 4.23**

Figured bass:



Figured bass as realized:

## Macro Analysis

*Macro analysis* is an analytical procedure that you can employ along with, or instead of, more conventional methods of analysis. The system's name *macro* (meaning large) defines the technique's fundamental purpose—to reveal large harmonic gestures in music. Patterns that are not easily seen in music become more visible through the use of macro analysis. Although Roman numeral analysis monitors chord-by-chord harmonic details, macro analysis provides a panoramic view of a composition's harmonic landscape.

The excerpt in Figure 4.24 has been analyzed using the two techniques. Note the relationship between the macro analysis symbols in the top layer and the Roman numeral analysis below. Both share a similar use of capital and lowercase letters to identify chord qualities, but macro analysis identifies chord roots with letters instead of Roman numerals. The macro symbols should not be confused with other letter-based symbols (such as popular music symbols). Instead, think of them as a shorthand analysis system. Macro analysis exposes the harmonic directions and forward motion (with slur symbols), whereas the Roman numeral analysis draws attention to smaller details such as chord position.

**Figure 4.24**

Rach: "St. Lucian," mm. 1–4



Macro Analysis: A E A D A E  
A major: I<sup>+</sup> V<sup>+</sup> I<sup>+</sup> IV<sup>+</sup> I<sup>+</sup> V<sup>+</sup>

This system employs letters to indicate the roots of chords, accompanied by specific symbols to depict chord quality. The letter symbol will correspond with the pitch name of the root of the triad. Macro analysis symbols for triads are written as follows:

- Major triads are represented by capital letter names.
- Minor triads are represented by lowercase letter names.
- Diminished triads are represented by lowercase letter names followed by the "°" symbol.
- Augmented triads are represented by capital letter names followed by the "+" symbol.

**Figure 4.25**

Major Triads



Minor Triads



The dominant seventh chord is represented by a capital letter followed by the superscript "7" symbol.

**Figure 4.26**

Dominant Seventh Chords



Slur symbols are used in macro analysis to label forward motion in music. Two types of slurs are added to the letter-based symbols:

- The solid slur is attached to adjacent letter symbols whose roots are either an ascending fourth or a descending fifth apart. In macro analysis, this type of progression is known as a *circle progression*.
- The dotted slur is connected to leading-tone chords whose roots resolve up a half step. Since the leading tone is functioning as a substitute for the dominant in this type of progression, the dotted slur indicates the use of a related chord as a substitute. In macro analysis, this type of progression is known as a *leading-tone progression*.

Refer to Chapter 10 for additional information about types of harmonic progressions.

**Figure 4.27**



Macro analysis symbols are traditionally positioned below the score. If used in conjunction with Roman numerals, the macro analysis will occupy the upper level with the Roman



## Assignment 4.1

Indicate the type of triad shown using the following abbreviations: M = major, m = minor, d = diminished, and A = augmented.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

## Assignment 4.2

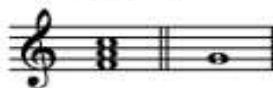
Write the requested triad above each given note as shown in the example.

*Alternative Directions: Macro Analysis*

1. Complete the requested triad above each given note.
2. Below the staff, write the letter symbol that represents each chord according to the macro analysis system.

Major Triad

1. (Ex.) 2.



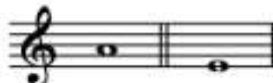
Minor Triad

11. 12.



Diminished Triad

21. 22.



Augmented Triad

31. 32.

