

Review of Undergraduate Tonal Theory for Graduate Study

Know, comprehend, and be able to apply all of the following topics. Refer to any standard undergraduate theory text(s) for information and exercises for these topics.

Key Signatures

major
minor (memorized, not "figured out")

Scales

major
minor (natural, harmonic, melodic)
relative/parallel
names of scale degrees
leading tone vs. subtonic

Intervals

perfect – 8ve, 4th, 5th
major/minor – 2nd, 3rd, 6th, 7th
augmented & diminished
tritone
inversion
compound intervals

Triads

construction of M, m, A, d
conventions for indicating quality or type – C, c, C+, c°
("white key" triads:
M – CEG, FAC, GBD
m – DFA, EGB, ACE
d – BDF)
bass position, inversion
which chord tone is in the bass
inversion symbols

Seventh Chords

<u>construction</u>	<u>common label</u>	<u>convention</u>
Major-major	major seventh	C ^{M7}
Major-minor	major-minor seventh dominant seventh	C ⁷ , C ^{Dom7}
Minor-minor	minor seventh	c ⁷
Diminished-minor	half-diminished seventh	c ^{ø7}
Diminished-diminished (fully) diminished seventh		c ^{o7}
bass position, inversion which note is in the bass inversion symbols		

part-writing: The seventh of a seventh chord resolves down by step.

Roman Numerals

convention for indicating keys – C:, d:

three pieces of information contained in a Roman numeral symbol

- 1) scale degree number of the root
- 2) quality, type of the triad or seventh chord
- 3) inversion

quality, type of triad and seventh chord on each scale degree in major & minor, including the variations in minor due to $\hat{6}$ and $\hat{7}$

Figured Bass

arabic numerals

relationship to inversion symbols

sharps, naturals, flats, slashes, plus signs

realizing in four-voice texture

Cadences

four standard types – Authentic, Half, Deceptive, Plagal

Perfect/Imperfect

strong-beat/weak-beat (aka "masculine/feminine")

What makes one cadence more final than another?

Six-four Chords

cadential six-four (metrically stronger position than the dominant triad)

passing six-four

pedal six-four

Formal Units

motive

phrase segment

phrase--relatively independent musical idea that ends with a cadence

period--two phrases in antecedent/consequent relationship

repeated phrase

phrase group

double period--two periods, or phrase group and period in

antecedent/consequent relationship

repeated period

parallel/contrasting

elision – last note of one phrase is first note of next phrase

phrase/period diagramming – diagram indicates: location, key, and type of

each cadence; lower-case letter to indicate material of each phrase; brackets

and labels to indicate relationships between phrases (e.g., "parallel double

period," "contrasting phrase group")

Chromatic Harmony

secondary functions – secondary dominants; secondary leading tone chords
(aka applied dominants)
Neapolitan chords
augmented sixth chords – It+6, Fr+6, Gr+6
borrowed chords (modal borrowing)
altered dominants
extended dominants (not necessarily chromatic)
common-tone diminished sevenths

Modulation

closely related keys/distantly related keys (foreign keys)
common-chord modulation
direct/phrase modulation
sequential modulation
common-tone modulation
enharmonic modulation

Larger Tonal Formal Patterns

open (continuous)/closed (sectional)
binary form
rounded binary form
ternary form
sonata form

Miscellaneous Terms and Concepts

tonality
common practice
sequence
imitation
homophony, polyphony, monophony
circle-of-fifths progression (circle-of-fourths)
dominant chord/key relationships
mediant, chromatic mediant chord/key relationships

3 Nonharmonic (Nonchord) Tones

Any note that is not heard as a member of the prevailing harmony (chord) at any given time is defined as a *nonharmonic (nonchord) tone*. In some highly dissonant contemporary styles this concept is inapplicable. The following are the most common types of nonharmonic tones.

I. A *passing tone* (p.t.) is used stepwise to fill in the gaps between chord tones in a line. These may be accented or unaccented. The example in I-C is often analyzed as an appoggiatura, since it is longer than its resolution and appears on a strong beat.

II. An *auxiliary tone* (aux., or *neighbor tone*) is used between a chord tone and its repetition. It may or may not be accented or in pairs, as it is in II-C.

III. An *escape tone* (e.t., or *échappée*) is unaccented, approached by step, and resolved by skip.

IV. A *free neighbor* (f.n., or *incomplete neighbor tone*) is unaccented, approached by skip, and left by step, usually in the opposite direction. It can be thought of as an unaccented appoggiatura.

V. An *anticipation* (ant.) is unaccented, anticipates a chord tone, and is usually shorter than this tone. It is typically a cadential idiom.

VI. A *pedal tone* (ped., or *pedal point*) is of long duration; it is prepared and resolved on the same pitch. A pedal tone is usually on the tonic or dominant note and serves to prolong that harmony through a passage, in which case the other voices sound like decorations of that harmony.

VII. An *appoggiatura* (app., or "*leaning note*") is accented, approached by skip, and resolved by step, usually in the opposite direction. It is often longer than its resolution. The example in VII-C may be analyzed as an accented passing tone.

VIII. A *suspension* (susp.) is accented, prepared by a chord tone on the same pitch, and resolved by step. The suspension figure requires preparation (prep.) on a chord tone, dissonance (diss.) on a relatively strong beat, and resolution (res.) by step to a chord tone. The upward-resolving suspension is sometimes called a *retardation*. The suspension does not have to be tied from its preparation. The arabic numerals (in the following example) are used to classify suspension figures and refer to the interval formed between the bass and the suspending voice on the suspension and resolution beats. The following idioms are common harmonic contexts for the suspension figure:

The resolution may be ornamented (VIII-A), or the chord may be changed at the point of resolution (VIII-B).

Outline Summary of Chromatic Harmony

Secondary Dominant

(see Kostka & Payne, *Tonal Harmony*, 2nd edition, Ch. 16, 17)

- chord symbols: V/V , $V\frac{6}{5}/ii$
- chromatically altered chord
- major triad or dominant 7th (Mm7)
- *tonicizes* a diatonic major or minor triad
- root is P5 above root of triad being tonicized
- normally resolves to the tonicized chord; may resolve deceptively
- Spelling:
 - 1) identify the root of the triad being tonicized (Roman numeral below the slash);
 - 2) spell up a P5 to find the root of the secondary dominant;
 - 3) spell the M or Mm7 from that root.
- Identifying:
 - 1) locate the chromatically altered chord;
 - 2) is it a M or Mm7?
 - 3) if so, spell P5 down from the root;
 - 4) if that is the root of a major or minor diatonic triad, what is its scale degree?
 - 5) analyze the chord as a secondary dominant.
- exception: $V7/III$ in a minor key is identical to $VII7$, and contains no chromatic alteration. If it tonicizes III, analyze it as a secondary dominant.

The musical notation consists of three measures, each with a grand staff (treble and bass clefs).
Measure 1: C major key signature. Treble clef: F#4, A4, C5. Bass clef: C3, E3, G3. This represents the secondary dominant V7/V (F#7) resolving to the tonic V (C).
Measure 2: C major key signature. Treble clef: G4, B4, D5. Bass clef: D3, F3, A3. This represents the secondary dominant V6/5/ii (E7) resolving to the supertonic ii (Dm).
Measure 3: c minor key signature. Treble clef: F#4, A4, C5. Bass clef: C3, E3, G3. This represents the secondary dominant V7/iv (F#7) resolving to the subdominant iv (Fm).

C: V^7/V V C: $V\frac{6}{5}/ii$ ii c: V^7/iv iv

Secondary Leading Tone

(see Kostka & Payne, *Tonal Harmony*, 2nd edition, Ch. 16, 17)

- chord symbols: $\text{vii}^{\circ 6}/\text{ii}$, $\text{vii}^{\circ 7}/\text{iv}$, $\text{vii}^{\circ 6}/\text{IV}$
- chromatically altered chord
- diminished triad, diminished seventh, or half-diminished seventh chord
- *tonicizes* diatonic major or minor triad
- root is m2 below root of triad being tonicized
- normally resolves to the tonicized chord
- Spelling:
 - 1) identify the root of the the triad being tonicized (the Roman numeral below the slash);
 - 2) spell down a m2 to find the root of the secondary leading tone;
 - 3) spell the o, o7, or ø7 from that root.
- Identifying:
 - 1) locate the chromatically altered chord;
 - 2) is it a o, o7, or ø7?
 - 3) if so, spell a m2 up from the root;
 - 4) if that is the root of a diatonic major or minor triad, what is its scale degree?
 - 5) analyze the chord as a secondary leading tone.
- exception: A chord that is spelled as a $\text{vii}^{\circ 7}/\text{V}$, but resolves to a I with common-tone voice leading is probably a $\text{cto}7$.

C: $\text{vii}^{\circ 7}/\text{V}$ V C: $\text{vii}^{\circ 7}/\text{ii}$ ii c: $\text{vii}^{\circ 7}/\text{iv}$ iv

Neapolitan

(see Kostka & Payne, *Tonal Harmony*, 2nd edition, Ch. 22)

- chord symbols: N^6 , N, $N^{\sharp 4}$
- chromatically altered chord
- major triad, likely in 1st inversion (N^6), may be in root position or 2nd inversion
- pre-dominant function – resolves to V, V^7 , $I^{\sharp 4}$, $i^{\sharp 4}$, vii^{o7}/V
- root is lowered 2nd scale degree (m2 above tonic – $\flat\hat{2}$)
- Spelling:
 - 1) identify the diatonic second scale degree in the key;
 - 2) lower it a half step with the appropriate accidental;
 - 3) spell the M from that root.
- Identifying:
 - 1) locate the chromatically altered chord;
 - 2) is it M?
 - 3) if so, is its root $\flat\hat{2}$?
 - 4) if so, analyze the chord as N^6 , N, or $N^{\sharp 4}$.
- Partwriting:

In a typical N^6 , the bass is doubled and resolves from $\hat{4}$ up to $\hat{5}$ for the V or $i^{\sharp 4}$. $\flat\hat{2}$ resolves down, a m2 to $\hat{1}$ if the resolution is to a $i^{\sharp 4}$ or $I^{\sharp 4}$, a d3 to $\hat{7}$ (the leading tone) if the resolution is to $V^{(7)}$. Avoid resolving $\flat\hat{2}$ up. The other voices resolve down. If the N^6 resolves to a $I^{\sharp 4}$ or $i^{\sharp 4}$, the $\flat\hat{2}$ should be voiced above the $\flat\hat{6}$ to avoid parallel P5s.

The musical notation consists of two systems of two staves each (treble and bass clef). The first system is in C major (one flat) and shows three chords: I⁴ (F-A-C), N⁶ (Bb-A-C), and V⁷ (F-G-A-Bb). The second system is in c minor (three flats) and shows two chords: N⁶ (Bb-A-C) and V⁷ (F-G-A-Bb). The bass line in the N⁶ chords is doubled and resolves from 4 up to 5.

C: N^6 $I^{\sharp 4}$ V^7 c: N^6 V^7

Augmented Sixth

(see Kostka & Payne, *Tonal Harmony*, 2nd edition, Ch. 23, 24)

- chord symbols: It^{+6} , Fr^{+6} , Gr^{+6}
- chromatically altered chord
- in most common bass position, contains:
 - 1) +6 interval between bass and an upper tone;
 - 2) M3 above the bass;
 - 3) one of the following:
 - a) another M3 (It^{+6});
 - b) +4 (Fr^{+6});
 - c) P5 (sometimes spelled as ++4) (Gr^{+6}).
- the interval of the +6 is created between
 - $\flat\hat{6}$ (the minor submediant scale degree – diatonic in a minor key, altered in a major key) and
 - $\sharp\hat{4}$ (the raised subdominant scale degree – altered in both major and minor keys)
- the interval of +6 normally resolves out to an octave: $\flat\hat{6} \searrow \hat{5}$; $\sharp\hat{4} \nearrow \hat{5}$
- pre-dominant function – resolves to V, V^7 , I_4^6 , i_4^6
- Spelling:
 - 1) locate the dominant scale degree;
 - 2) spell a m2 above ($\flat\hat{6}$) and below ($\sharp\hat{4}$);
 - 3) put the $\flat\hat{6}$ in the bass and the $\sharp\hat{4}$ in an upper voice;
 - 4) spell a M3 above the bass (always $\hat{1}$);
 - 5) spell:
 - a) another M3 (It^{+6}); OR
 - b) an +4 (Fr^{+6}); OR
 - c) a P5 or ++4 (Gr^{+6}).
- Identifying:
 - 1) locate the chromatically altered chord;
 - 2) you may immediately recognize the interval of +6 or the $\flat\hat{6}$, $\sharp\hat{4}$ combination;
 - 3) if not, collect the notes of the chord into a close-position stack of 3rds, to identify the root and type of the chord;
 - 4) if one of the 3rds in the stack is a o3, you know that the chord is not one of the standard triads or seventh chords, and further, that a o3 inverts to an +6;
 - 5) examine the intervals above the $\flat\hat{6}$ to determine the ethnicity of the chord.
- Partwriting:

Typically, the +6 interval resolves out to an octave (or its compound) on $\hat{5}$. The other voices move smoothly, by common tone or step. When a Gr^{+6} resolves directly to a V, parallel P5s result; they are permissible.

- Note: The Gr+6 chord is the enharmonic equivalent of a Mm7 (dominant 7th), but is very different in function. Gr+6 chords can be effective in enharmonic modulations.
- Note: Augmented sixth chords are often found as the pre-dominant chord before a half cadence at the end of a transition passage, or immediately before the dominant preparation in the development of a sonata form.

The musical notation consists of two staves, treble and bass clef. The first measure is in C major (one sharp) and contains the chords It+6, V, and c. The second measure is in c minor (no sharps or flats) and contains the chords Fr+6, i4, and V7. The third measure is also in c minor and contains the chords Gr+6, i4, and V.

C: It⁺⁶ V c: Fr⁺⁶ i₄⁶ V⁷ c: Gr⁺⁶ i₄⁶ V

Borrowed Chord

(see Kostka & Payne, *Tonal Harmony*, 2nd edition, Ch. 21)

- chord symbols: in minor key: I, in major key: ii^{♭7}, iv₃[♯], ♭VI
- chromatically altered chord
- triad or seventh chord borrowed from the parallel major or minor key
- the most common borrowing into a minor key is I (the Picardy third)
- the most effective borrowings into a major key involve the ♭♭⁶ or ♭♯³ – iv, iv⁷, ii[♭], ii^{♭7}, ♭VI, ♭VI^{M7}
- borrowed chords function in chord progressions the same way their diatonic counterparts do
- Spelling:
Borrowed chord symbols are recognized because the chord type indicated is not the type for the prevailing mode, but is the type for the parallel mode.
Either:
1) use the key signature of the parallel mode, and spell the diatonic chord; OR
2) locate the root, as indicated in the chord symbol, and spell the specified chord type.
- Identifying:
1) locate the chromatically altered chord;
2) if it is a standard triad or seventh chord type, is it a secondary dominant, secondary leading tone, or Neapolitan?
3) if not, check to see if the chord is diatonic in the parallel mode.

- Partwriting:

In general, the lowered tones of chords borrowed from minor into major keys resolve down by step.

- Note: A major tonic triad in a minor key is likely to have one of two functions. At the end of a phrase it is likely to function as a major tonic triad (Picardy third), and should be analyzed as I. In the middle of a phrase it is likely to function as a V/iv.

C: ii^{°6}/₅ V C: iv⁷ i⁶/₄ V⁷

Dominant 9th, 11th, 13th

(see Kostka & Payne, *Tonal Harmony*, 2nd edition, Ch. 26)

- chord symbols: V⁹, V¹¹, V¹³
- the V⁷ is extended by stacking additional diatonic 3rds above the root
- usually found in root position (in common-practice music, though not necessarily in jazz or pop)
- in four voices, chord tones are omitted; frequently:
9th – root, 3rd, 7th, 9th present; 5th omitted;
11th – root, 7th, 9th or 5th, 11th may be present; 3rd, 5th or 9th may be omitted;
13th – root, 3rd, 7th, 13th may be present; 5th, 9th, 11th may be omitted.
The 11th and 3rd are usually not present together.
- usually resolves to I, i; may resolve deceptively
- Spelling:
Stack additional 3rds above a V⁷.
- Identifying:
Try to make a stack of 3rds above the bass, recognizing that some tones may be missing.

• Partwriting:

- 1) the 7th always resolves down by step ($\hat{4} \searrow \hat{3}$);
- 2) the 9th always resolves down by step ($\hat{6} \searrow \hat{5}$) when the V9 resolves, or steps or skips to another chord tone, so the chord becomes a V7 before it resolves;
- 3) the 11th often resolves down by step ($\hat{1} \searrow \hat{7}$) before the dominant chord resolves, or resolves by common tone ($\hat{1} \rightarrow \hat{1}$);
- 4) the 13th often resolves as an escape tone figure, skipping down a 3rd ($\hat{3} \searrow \hat{1}$)

C: V⁹ I c: V⁹ i C: V¹¹ V⁷ C: V¹³ I

General Partwriting Principles

Never double the leading tone (either the leading tone of the key, or a secondary leading tone).

The seventh of a seventh chord resolves down by step.

Chromatically altered tones generally resolve in the direction of their alteration (lowered tones resolve down; raised tones resolve up).