Theory 1

From Fundamentals of Jazz Improvisation: What Everybody Thinks You Already Know

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Jazz Theory

This text is designed for students who have had at least one year of college level music theory and ear training. Principles unique to or of more emphasis in jazz are expounded upon. Topics include:

Part I

Modes of the Major Scale
   Major
   Dorian
   Dominant
Intervals
Chromaticism
The ii V7 I progression

Piano:
   Major Voicing
   Minor Voicing
   Dominant Voicing
   ii V7 I Voicing 1, 2, 3
   Blues Voicing 1, 2
   Tune: Student Choice

Worksheets:
   Major: Scale, Arpeggio, Chord, Pattern
   Minor: Scale, Arpeggio, Chord, Pattern
   Dominant: Scale, Arpeggio, Chord, Pattern
   Intervals
   Chord Symbol Chart
   Chromaticism: Dominant Be-bop, Minor Be-bop, Major Be-bop, Pick-up and Passing Notes,
      Diatonic Enclosure, Chromatic Enclosure, Inclusive Pattern
   ii V7 I: Voicing I, Voicing II, One Measure Pattern, Two Measure Pattern

Theory covered in other sections:
   Chord Progression
   Chord Substitution and Turnaround
   Intro and Tag
   Form and Structure
   Blues
   Rhythm Changes
Ear Training Concepts

Practically every principle and exercise taught in jazz improvisation helps to develop the ear. Here are a few things to consider:

Active Listening: Listening for something focuses the ear according to the element of concentration: bass line, instrumentation, harmony (consonant/dissonant; simple/complex), articulation, subdivision, dynamic, inflection, etc.

Practice Techniques: Each technique focuses on something specific.

PT 1: Practicing circular patterns tune the ear to the particular chord/scale spectrum. It can help to play the companion chord on the piano while practicing circular patterns.
PT 2: Same mode sequences saturate one in a particular mode. Shifting the root while maintaining the mode helps to focus on the quality of the mode verses the memorization, physical or aural, of specific pitch.
PT 3: Taking a pattern through 12 keys helps one to comprehend the character of the pattern both aural and rhythmic. It is wise to include rhythm as an element of ear training. Like PT 1, it is valuable to play the requisite chord on the piano then play the pattern. It also helps to sing the pattern with the piano chord through 12 keys.
PT 4: Application of many concepts is made in this exercise. They are applied to a recorded accompaniment that remains in a single mode. Sustaining each chord tone and listening to the quality of sound is a valuable ear training exercise. Applying the various techniques over a single chord helps familiarize one to that quality.
PT 5: Chord progression learning techniques apply to ear training as above. Use the recorded accompaniment with open ears but not as a crutch. Sing the exercises as much as possible.
PT 6: All principles of independence apply to ear training. Keep in mind that one should be able to sing what one plays. The principles of independence are a great practice technique to strengthen this ability. Don’t be afraid to try. Of course, singing an improvised solo with an accompaniment, recorded or live, is additionally invaluable.

Piano: Practicing jazz chord voicings on the piano helps us to become familiar with how chords are realized in a jazz setting. It is a good way to become familiar with the jazz idiom harmonic sound.

Theory: It is important to learn what one is attempting to hear. This intellectual knowledge will transfer to applied knowledge; it must, or one cannot play jazz. A large part of having a good ear comes from knowledge of what to expect. Certain chord progressions, for example, have distinctive sounds such as ii V7 I. Knowing the theory involved helps us identify what we are hearing and, consequently, expands our ears.

Tune Learning: Singing the melodies to tunes, playing harmonies in 12 keys, listening; learning jazz tunes can include all techniques, principles, and methods known to enhance aural and physical skill needed for jazz improvisation. Over time, these techniques will develop the ear even if the work isn’t labeled “ear training.”
Transcription: Lifting a solo off a recording is fundamental in the progress of one’s aural and rhythmic ability. Some may start by “hen pecking” individual notes but eventually one should work with larger units. Sing them first, and then play the motifs. Learn the whole solo by memory. Also, pay attention to the method outlined for transcribing chords. Listening for one element at a time helps to focus the ear.

Ear Training Class: Although primarily classical in origin, any ear-training course regardless of idiom is invaluable to the jazz musician.

Tunes for Ear Training: This is a chart on tunes that can help students recognize intervals. It is designed to recognize intervals through already familiar means. They can eventually become independent of the reference tunes.
Tunes for Ear Training

The following chart lists tunes that have prominent motives utilizing the interval indicated to the left; they are not always the first notes. Find tunes that are already familiar. One will begin to realize that many intervals are already known and recognizable.

<table>
<thead>
<tr>
<th>Ascending</th>
<th>Descending</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>Count Your Blessings</td>
<td>Birdland</td>
</tr>
<tr>
<td>Did You Think To Pray?</td>
<td>Bye, Bye Blackbird (on Blackbird)</td>
</tr>
<tr>
<td>Father in Heaven, We Do Believe (do)</td>
<td>Come, Ye Children of the Lord</td>
</tr>
<tr>
<td>How Insensitive</td>
<td>For the Beauty of the Earth</td>
</tr>
<tr>
<td>I Am a Child of God (a child)</td>
<td>Joy to the World</td>
</tr>
<tr>
<td>I Left My Heart In San Francisco</td>
<td>Lady Is A Tramp, The</td>
</tr>
<tr>
<td>I Remember You</td>
<td>Major Scale (descending)</td>
</tr>
<tr>
<td>I'll Remember April</td>
<td>O Little Town of Bethlehem (town)</td>
</tr>
<tr>
<td>I'm Getting Sentimental over You</td>
<td>Solar (Miles Davis)</td>
</tr>
<tr>
<td>Joseph Smith's First Prayer</td>
<td>Sophisticated Lady</td>
</tr>
<tr>
<td>Lord Is My Shepherd, The (I know)</td>
<td>Stella by Starlight</td>
</tr>
<tr>
<td>Nice Work If You Can Get It</td>
<td>Theme, The (Miles Davis)</td>
</tr>
<tr>
<td>What's New</td>
<td>Welcome, Welcome, Sabbath Morning</td>
</tr>
<tr>
<td>M2</td>
<td></td>
</tr>
<tr>
<td>Ain't Misbehavin’</td>
<td>'Tis Sweet to Sing the Matchless Love</td>
</tr>
<tr>
<td>Are You Sleeping (Frere Jaques)</td>
<td>Abide with Me</td>
</tr>
<tr>
<td>Autumn Leaves</td>
<td>Be Still My Soul</td>
</tr>
<tr>
<td>Because I Have Been Given Much (been given)</td>
<td>Be Thou Humble</td>
</tr>
<tr>
<td>Blue Monk</td>
<td>Corcovado (Quiet Nights)</td>
</tr>
<tr>
<td>Body and Soul</td>
<td>Do What Is right</td>
</tr>
<tr>
<td>Bridge of Avignon, The</td>
<td>Don't Get Around Much Anymore</td>
</tr>
<tr>
<td>Bye, Bye Blackbird (on Bye, Bye)</td>
<td>Fever</td>
</tr>
<tr>
<td>Choose the Right</td>
<td>Hot Cross Buns</td>
</tr>
<tr>
<td>Come, Come Ye Saints</td>
<td>Jesus, the Very Though of Thee</td>
</tr>
</tbody>
</table>
| Desifinado | Jesus, the Very Thought of Thee (the ver-)
| Far, Far Away on Judea’s Plains | Jolly Old Saint Nicholas |
| God Loved Us, So He Sent His Son | Lord, Dismiss Us with Thy Blessing |
| God, Our Father, Hear Us Pray | Lord, I Would Follow Thee |
| Happy Birthday | Mary Had a Little Lamb |
| He Is Risen! | Mercy, Mercy, Mercy |
| I've Got You Under My Skin | Now Let Us Rejoice |
| In Humility, Our Savior | Poor Wayfaring Man of Grief, A |
| In Memory of the Crucified | Precious Savior, Dear Redeemer |
| Israel, Israel, God Is Calling | Satin Doll |
| It's All Right with Me | So What |
| Jesus of Nazareth, Savior and King | Sunnymoon for Two |
| Kookaburra | The First Noel |
| Love One Another | Theme from M*A*S*H |
| Major Scale (ascending) | Three blind Mice |
| My Country, 'Tis of Thee | Tune Up |
| My Funny Valentine | We Three Kings of Orient Are |
| My Hat |            |
| Nice Work If You Can Get It (Nice Work) |            |
| Now the Day Is Over (Night) |            |
| Onward, Christian soldiers (soldiers) |            |
| Polka Dots and Moonbeams |            |
| Redeemer of Israel |            |
| Rudolph the Red Nosed Reindeer |            |
| Sakura |            |
| Silent Night |            |
| There Will Never Be Another You |            |
| This Land Is Your land |            |
| Upon the Cross of Calvary |            |
| We Are All Enlisted |            |
| We Thank Thee, O God, for a Prophet |            |
| Woody 'n You |            |
| You'd Be So Nice to Come Home To |            |
| -3        |            |
| Abide with Me; 'Tis Eventide | 500 Miles High |
| Angels We Have Heard on High | America the Beautiful |
| Blue Trane | April in Paris |
| Blues by Five | Caisson Song, The (Over Hill, Over Dale) |
| Boplicity | Camptown Races |
| Brahms’ Lullaby | For All the Saints |
| Confirmation | Frosty the Snow Man |
| Foggy Day, A | Girl from Ipanema, The |
| Georgia on My Mind | Glory to God on High |
| Go Tell It on the Mountain | Hey Jude |
| God Be With You Till We Meet Again | How Great Thou Art |
| Greensleeves | Iron Rod, The (hold to) |
| I’ll Go Where You Want Me to Go (not be) | Jesus, Once of Humble Birth |
| Impossible Dream, The | Kookaburra (old gum tree) |
| In Remembrance of Thy Suffering | Misty |
| Minor Chord | O God, the Eternal Father |
| Spring Can Really Hang You Up the Most | On Top of Old Smoky (smoky) |
| Stompin’ at the Savoy | Short’nin’ Bread |
| We Three Kings (Oh) | Star Spangle Banner, The |
| While of These Emblems We Partake | This Old Man |
| Work song | What is This thing Called Love |

| M3 | Come, Listen to a Prophet’s Voice |
| I Can’t Get Started | Abide with Me (2nd and 4th notes) |
| I Heard the Bells on Christmas Day | Come Rain or Come Shine |
| I Need Thee Every Hour | Down in the Valley (valley) |
| Kumbaya | Giant Steps |
| Little Tom Tinker (goy burned) | He Is Risen! (risen) |
| Major Triad | How Gentle God’s Commands |
| Marines’ Hymn, The | Lord, Dismiss Us with Thy Blessing (2nd and 4th notes) |
| Michael, Row the Boat Ashore | Nearer, Dear Savior, to Thee |
| Oh When the Saints | Shoo, fly, Don’t Bother Me |
| On Top of Old Smoky | Skip to My Lou |
| Praise to the Man | Summertime |
| Sweet Hour of Prayer | Swing Low, Sweet Chariot |
| | Tenor Madness (Sonny Rollins) |

| P4 | ‘Round Midnight |
| All the Things You Are | All Creatures of Our God and King (thou Burning Sun) |
| Auld Lang Syne | All of Me |
| Away in a Manger (Hymn Book version) | Blues for alice |
| Behold the Great Redeemer Die | Clementine |
| Bingo | Good King Wenceslaus (looked out) |
| C Jam Blues | Great Is the Lord |
| Come, Let Us Anew | Hope of Israel (Israel) |
| Down in the Valley | I Didn’t Know What Time It Was |
| Doxy | I’ve Been Workin’ On the Railroad |
| Hark! the Herald angels Sing | Little Tom Tinker (Ma) |
| Have I Done any Good? | Mighty fortress Is Our God, A |
| Here Comes the Bride | Oh Come All Ye Faithful |
| High On a Mountain Top | Old MacDonald Had a Farm |
| How Firm a Foundation | Softly As a Morning Sunrise |
| How High the Moon | Valse Hot |
| I Saw Three Ships | Walkin’ (after intro) |
| I Stand All Amazed | What is This Thing Called Love? |
| Improve the Shining Moments | When Johnny Comes Marching Home |
| Love Me Tender (aura Lee) | Yardbird Suite |
| Maiden Voyage | |
| More Holiness Give Me | |
| Now’s the Time | |
| Oh Christmas Tree | |
| Ornithology | |
| Rejoice, the Lord Is King | |
| Reveille | |
| Shadow of Your Smile, The | |
| Shenandoah | |
| Someday My Prince Will Come | |
| Song for My Father | |
| Straight No Chaser | |
| Taps | |
| The Day Dawn Is Breaking | |
| The Spirit of God | |
| Twelve Days of Christmas, The | |
| We Wish You a Merry Christmas | |
| We Wish You a Merry Christmas | |
| When I Fall in Love | |
| Ye elders of Israel | |

<p>| TT | Angel Eyes (1st to 3rd notes) |
| | Blue Seven (Sonny Rollins) |</p>
<table>
<thead>
<tr>
<th>Page</th>
<th>Songs 1</th>
<th>Songs 2</th>
</tr>
</thead>
</table>
| P5   | All Glory, Laud, and Honor  
     | All the Pretty Little Horses  
     | Angel eyes  
     | Baa, Baa, Black Sheep  
     | Bag’s Groove  
     | God Rest Ye Merry Gentlemen  
     | Iron Rod, The  
     | Let Us Oft Speak Kind Words  
     | My Favorite Things  
     | Nica’s Dream  
     | Praise to the Lord, the Almighty  
     | Press Forward, Saints  
     | Scarborough Fair  
     | Twinkle, Twinkle Little Star  
     | Twinkle, Twinkle Little Star  
     | Wayfaring Stranger  
     | While Shepherds Watched Their Flocks  
     | You Can Make the Pathway Bright (2 Xs)  |
| +5,-6 | Home on the Range (buffalo roam)  
     | Lor, I Would Follow Thee (I learn)  |
| M6   | America the Beautiful (America)  
     | Days of Wine and Roses  
     | How Great the Wisdom and the Love  
     | Hush, Little Baby  
     | I Believe In Christ (He Is)  
     | Inch Worm  
     | It Came upon a Midnight Clear  
     | Jingle Bells (dashing)  
     | Lord Is My Shepherd, The  
     | Love at Home  
     | My Bonnie Lies Over the Ocean  
     | NBC  
     | Oh Say, What Is Truth?  
     | Put Your Shoulder to the wheel  
     | Short’nin’ Bread (chorus)  
     | Speak Low  
     | Take the “A” Train  
     | We’ll Sing All Hail to Jesus’s Name  
     | When Sunny Gets blue  |
| -7   | As Now We Take the Sacrament  
     | Lord Is My Shepherd, The (I feed)  
     | Theme from Star Trek  |
| M7   | Ceora  |
| P8   | Called to Serve  
     | Christmas Song, The  
     | Let It Snow  
     | Old Folks at Home (Swanee)  
     | Sing a Song of sixpence (sixpence)  
     | Somewhere Over the Rainbow  |
| Sakura (12th and 14th notes, gi-ri of kagiri or the sky) | Bring a Torch, Jeannette, Isabella  
     | Buffalo Gals  
     | Feelings  
     | Have You Met Miss Jones  
     | It Don’t Mean a Thing  |
| Just Friends (5th and 6th notes)  
     | Let Us All Press On (press on)  
     | Misty (1st to 3rd note)  
     | Please Don’t Talk About Me When I’m gone  
     | Take the “A” Train (5th and 6th notes)  
     | You’re Everything (Chick Corea)  |
| Indiana  
     | Love One another (have loved)  
     | Nobody Knows the Trouble I’ve Seen  
     | There Is Sunshine in My Soul Today (sunshine)  |
| Honeysuckle Rose (1st and 3rd notes)  
     | Watermelon Man  |
| I Love You  | Willow Weep for Me  |
Scale Syllabus

Scales are chords with extensions. For example, C E G B is every other note of the C Major scale: C D E F B A B C. If one continues with this every other note concept, a C Maj. 13 chord results: C E G B D F A. On major chords the 11th (F in this case) is usually omitted but the principle remains intact. Thus, playing the notes of a scale horizontally in any order (as in a melody or improvisation), while staying true to the collection of pitches, is the same as playing the related chord harmonically. Granted, the notes are not sounded simultaneously so not technically a chord but the notes will fit and the progression will be heard. All of the notes in the scales on the left in this chart, with the disputed fourth note of the major scale, will work as note choices, again in any order, for the chords indicated to the right of the chart.

Major

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\end{array}
\]

Minor (Dorian)

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\end{array}
\]

Dominant (Mixolydian)

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\end{array}
\]

Dominant Bebop

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\end{array}
\]

Minor Bebop

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\end{array}
\]

Major Bebop

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\end{array}
\]
Blues

Major pentatonic with flat-5

Harmonic Minor

Dominant Sharp-5 (Whole Tone)

Dominant Flat-9 (Diminished ½ step 1st)

Dominant Altered (Superlocrein, Diminished Whole Tone, Altered)

Half-diminished (Locrian)

Half-diminished Major 9 (Locrian #2)

Diminished

(alternation of whole-steps and half-steps)
Major Sharp 11 (Lydian)

Dominant Sharp 11 (Lydian Dominant)

Major Pentatonic

Minor Pentatonic

Sus4
# Chord Symbol Chart

Many more chord qualities exist than are included in this chart. Use of *M* for major and *m* for minor is not recommended. One may also see + for sharp and – for flat. The prefix of a chord is its root letter name such as A for A\(^7\). The suffix of a chord is what follows to indicate quality, extension, and/or alteration.

<table>
<thead>
<tr>
<th>Quality</th>
<th>Possible Chord Tones</th>
<th>Quality</th>
<th>Extensions</th>
<th>Examples (Root and Suffix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>1 3 5 7 9 13</td>
<td>Maj maj M ma Δ</td>
<td>7 9 13</td>
<td>C(7) Bb(9) Gm(9) F#(13)</td>
</tr>
<tr>
<td>Major 6</td>
<td>1 3 5 6</td>
<td>Maj maj M ma Δ (or none)</td>
<td>6</td>
<td>F(6) Am(6) Eb(6) D(6)</td>
</tr>
<tr>
<td>Major 6/9</td>
<td>1 3 5 6 9</td>
<td>Maj maj M ma Δ (or none)</td>
<td>6 9</td>
<td>C(6) B(9) D(9) B(9) Ab(9)</td>
</tr>
<tr>
<td>Minor/Dorian</td>
<td>1,5,3,7,9,11,13</td>
<td>Min min m mi –</td>
<td>7 9 11 13</td>
<td>B(6) C(9) Eb(9) E(13)</td>
</tr>
<tr>
<td>Minor 6</td>
<td>1,5,3,6</td>
<td>Min min m mi –</td>
<td>6</td>
<td>A(6) D(6) E(6) F(6)</td>
</tr>
<tr>
<td>Minor 6/9</td>
<td>1,5,3,5,6,9</td>
<td>Min min m mi –</td>
<td>6 9</td>
<td>C(6) D(9) B(9) Ab(9)</td>
</tr>
<tr>
<td>Dominant</td>
<td>1 3 5 7 9 13</td>
<td>none</td>
<td>7 9 13</td>
<td>A(7) F#(13) G(9) D(9)</td>
</tr>
<tr>
<td>Minor/Major</td>
<td>1,3,5,7 9</td>
<td>Min min m mi –</td>
<td>7 9 11 13</td>
<td>C(6) (7) F(13) (7) G(9) (7) D(9) (7)</td>
</tr>
<tr>
<td>Dominant Flat 9</td>
<td>1 3 5 7 9 13</td>
<td>none</td>
<td>7 9 13</td>
<td>G(7) (9)</td>
</tr>
<tr>
<td>Half-diminished</td>
<td>1,3,5,7</td>
<td>Min min m mi – ø(alone or with 7)</td>
<td>7(^{(5)})</td>
<td>F(7) B(9) D(9) C(13) B(9) G(9)</td>
</tr>
<tr>
<td>Half-dim. Major 9</td>
<td>1,3,5,7 9</td>
<td>Min min m mi – ø(alone or with ext)</td>
<td>9(^{(5)}) 11(^{(5)})</td>
<td>C(3) B(9) B(9) C(13) B(9) G(9)</td>
</tr>
<tr>
<td>Dominant Sharp 5</td>
<td>1 3 5 7 9 9</td>
<td>none</td>
<td>7(^{(6)}) 9(^{(6)})</td>
<td>F(+9) A(7) B(9) G(9)</td>
</tr>
<tr>
<td>Dominant Altered</td>
<td>1 3 5 7 9 9 9</td>
<td>none</td>
<td>7(^{alt or specific})</td>
<td>A(7) C(13) B(9) E(7) (13)</td>
</tr>
<tr>
<td>Major Sharp 11</td>
<td>1 3 5 7 9 11</td>
<td>Maj maj M ma Δ</td>
<td>7(^{(11)}) 9(^{(11)})</td>
<td>G(7) (11) C(11) (7) Ab(11) (9)</td>
</tr>
<tr>
<td>Dominant Sharp 11</td>
<td>1 3 5 7 9 11</td>
<td>none</td>
<td>7(^{(11)}) 9(^{(11)})</td>
<td>G(7) (11) D(11) A(11)</td>
</tr>
<tr>
<td>Sus4</td>
<td>1 4 5 7 9 13</td>
<td>sus</td>
<td>7 9 13</td>
<td>C(9) F(7) A(7) B(9) E(9) A(9) B(9) G(9)</td>
</tr>
<tr>
<td>Diminished</td>
<td>4 1 3 5 7 11</td>
<td>Dim dim ø</td>
<td>7(^7)</td>
<td>D(7) A(7) E(9) G(11)</td>
</tr>
</tbody>
</table>
Intervals

Half-Step: the distance from one key to the next closest key, up or down.
Whole-Step: two half-steps, two notes on the keyboard with one in between.

Melodic Intervals

Scale: a pattern of whole-steps and half-steps

Major Scale Intervals: major and perfect (distance from the first note of the scale to the note in question)

Natural Minor Scale Intervals: minor and perfect (except second and ninth)

Harmonic Intervals

Intervals can be measured ascending or descending. When determining intervals, both melodic and harmonic, make the assessment based on the lowest note.
Quality

First consider the numeric distance (2nd, 3rd, 4th, etc.). This is calculated by associating the number (scale degree) to the alphabetic name (if C is 1, E is 3). Do not use enharmonics: F-flat is not E, C-flat is not B, etc.

Next, determine the quality of the interval (perfect, minor, major, diminished, augmented). Start with the known qualities of the major scale: all intervals are major except the unison, octave, 4th and 5th, which are perfect. In reducing intervals, major can be made minor; minor can be made diminished. In enlarging intervals, major can be made augmented. Perfect intervals can be diminished or augmented. The reduction or increase is by half-step.

Practical application in jazz is as follows:

Unison: remains unison, no diminished or augmented usage.
Second: a major second can become minor or augmented; augmented is uncommon.
Third: major and minor thirds are common; the augmented third is not, it becomes a perfect forth.
Fourth: augmented fourths are common; diminished fourths are not, they become major thirds.
Fifth: both the diminished and augmented fifth is common.
Sixth: are major or minor; augmented sixths become minor sevenths.
Seventh: major, minor, and diminished sevenths are common; augmented becomes the octave.

Diminished: flat as in flat five, flat nine, or flat thirteen.

Augmented: sharp as in sharp four, sharp five, sharp nine, or sharp eleven; or plus as in plus four, plus five.

A to D-sharp is a fourth because four letters of the alphabet are involved. D natural is the note found in the major scale (all intervals are major except the unison, octave, 4th and 5th, which are perfect); it is a perfect fourth. Perfect intervals can be diminished or augmented. A to D-sharp is augmented, often called sharp four or plus four.

A to E-flat is a fifth because five letters of the alphabet are involved. E natural is the note found in the major scale; it is a perfect fifth. A to E-flat is diminished often called a lowered fifth or flat five.
Modes of the Major Scale

The modes of the major scale are scales derived from starting on a given scale degree and retaining the key signature. For example, the key of C Major has no sharp and no flats. If we start on D, retain the C Major key signature, and play a step-wise motion, we are in the Dorian mode.

If we start on G and use those notes intact as a group with the C Major key signature, it is the mixolydian mode.

A distinguishing element is the chord these scales represent. Dorian is a minor scale appropriate to a minor chord from a simple triad through extensions 9, 11, and 13. Mixolydian is a dominant scale appropriate to a dominant chord from the triad through extensions 9 and 13. Notice that the minor chord in the example below is a mm7 and the dominant is a Mm7 chord. When applying extensions, include the 7th and keep stacking thirds. The numbers are derived from scale degrees beginning on the root of the chord (D dorian: D = 1, E = 3, F = 3, etc) rather than the relative major or the key signature of the composition.

The names of the modes of the major scale are:

The dorian, mixolydian, and ionian (Major) modes are most significant due to their place in a ii V7 I chord progression. The sequence is derived from a chord that starts on the second scale degree of the major, or tonic, scale then moves to a chord starting on the fifth scale degree and resolving to tonic, or I. These chords all share the same key signature.
As a matter of historical perspective, one should note that the jazz modes dorian, mixolydian and the like are scales and not compositional modes as in Medieval, Renaissance, or other classical music definitions or usages.

The first occurrence of these names was in the ancient Greek period. Constructs of music were derived from combining four-note units called tetrachords as used in kithara playing (a harp-like instrument). Tetrachords were combined to form what we might call scales and music was composed within these groups of notes. Some of the “scales” thus derived parallel the jazz modes in name and intervallic relationship, such as dorian, but others do not; some incorporate quarter tones or have other interval relationships very dissimilar to the above jazz scales.

Greek music theory principles progressed through and were mixed with other cultures, such as Hebrew and Byzantine, to the Western Europe medieval modes and codified by the 9th century. There were eight medieval modes: dorian, hypodorian, phrygian, hypophrygian, lydian, hypolydian, mixolydian, and hypomixolydian. One can see the name relations to the jazz modes. The pitch relationships of dorian, phrygian, lydian, and mixolydian relate to the jazz modes of the same names; however, usage was not the same. Ionian, aeolian, and locrian are much later additions.

Modal music, as it was in the Medieval through the Renaissance eras, by definition is music that uses a specific group of notes somewhat exclusively without attention to chord progression, with tonal center but not as in the major/minor tonal system or diatonic music (which began c. 1600, codified in Traité de l’harmonie,1722 by Jean-Philippe Rameau). Medieval and especially Renaissance theory is melodic with concern for intervallic harmony. Modal jazz such as So What or Impressions stay on a single chord for a long period of time and, even though they have more than one tonal center, are closest to being truly modal and aptly named.

Thus, the jazz modes are thought of as mode = aspect, referring to its relation to major as above or other known scale basis including ascending melodic minor and harmonic minor. The jazz “modes” are not modal in the classical or historical sense but are scales.
Worksheets

Worksheets are organized into packets:

1. Major: Scale, Arpeggio, Chord, Pattern
2. Minor: Scale, Arpeggio, Chord, Pattern
3. Dominant: Scale, Arpeggio, Chord, Pattern
4. Chromaticism: Dominant Be-bop, Minor Be-bop, Major Be-bop, Pick-up and Passing Notes, Diatonic Enclosure, Chromatic Enclosure, Inclusive Pattern
5. ii V7 I: Voicing I, Voicing II, One Measure Pattern, Two Measure Pattern

Additional worksheets include:

- Intervals
- Chord Symbol Chart
- Improv Solo Composition: So What, Satin Doll, Blues

Scales and Arpeggios

Write all scales and arpeggios up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Chords

Write chord voicings as in the example given.
Keep voicings centered around middle C.
Play all chords on the piano, listen, become familiar with the sound of the jazz voicing.
Play the companion scale, arpeggio, and pattern.

Patterns

Several examples are given for each quality.
The chord most appropriate to the pattern included.
Find two patterns for each pattern worksheet that are specific to the quality indicted. Sources might include a transcription, a jazz improvisation text book, Aebersold play-a-long series, a book on jazz patterns such as Jerry Coker’s Pattern for Jazz, a reputable professional (i.e. Aaron Miller, Ryan Nielsen, Mark Watkins, Jay Lawrence, Keith Phillips, Justin Nielsen).
Add patterns to the log to increase vocabulary.

Chromaticism

Be-bop Scales: Dominant, Minor, Major; Be-bop scales use a chromatic passing tone to keep chord tones in line with beat emphasis. The dominant and minor be-bop scales use the same pitches, as is logical for use in ii V7 I patterns.
Pick-up and Passing Notes
Diatonic Enclosure
Chromatic Enclosure

\textit{ii V7 I}

Chord Voicings I, II, III
One-measure Patterns
Two-measure Patterns
Worksheet Packet #1: Major

Scale
Write all scales up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Arpeggio
Write all arpeggios up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Chords
Write chord voicings as in the example given.
Keep voicings centered around middle C.
Play all chords on the piano, listen, become familiar with the sound of the jazz voicing.
Play the companion scale, arpeggio, and pattern.

Patterns
Several examples are given with the chord most appropriate to the pattern included.
Find two patterns that are specific to the quality (major). Sources might include a transcription, a jazz improvisation textbook, Aebersold play-a-long series, a book on jazz patterns such as Jerry Coker’s *Pattern for Jazz*, a reputable professional (i.e. Aaron Miller, Ryan Nielsen, Mark Watkins, Jay Lawrence, Keith Phillips, Justin Nielsen, or a visiting guest).
Include the appropriate chord symbol and pattern source.
Add patterns to the log to increase vocabulary.
Scale

Example:

\[\begin{align*}
Bb & \quad F \\
C & \\
Bb & \quad Eb \\
Ab & \quad G^\# \\
Db & \quad C^\# \\
Gb & \quad F^\# \\
B & \quad E \\
A & \quad D \\
G &
\end{align*}\]
Arpeggio

Example:

```
C\#                              C\#
C                                F
Bb                               Eb
Ab                               G\#
Db                               C\#
Gb                               F\#
B\#                               E
A\#                               D
G                                 
```
Patterns (treble)

Examples:
Patterns (bass)

Examples:

\( \text{C}_9 \)
\[ \begin{array}{c}
    \text{b3} \\
    \text{b5} \\
    \text{b7} \\
    \text{b9} \\
    \text{b11} \\
    \text{b13} \\
\end{array} \]

\( \text{C}_9 \text{(b11)} \)
\[ \begin{array}{c}
    \text{b3} \\
    \text{b5} \\
    \text{b7} \\
    \text{b9} \\
    \text{b11} \\
    \text{b13} \\
\end{array} \]

\( \text{C}_9 \text{ or } \text{C}_9 \text{(b11)} \)
\[ \begin{array}{c}
    \text{b3} \\
    \text{b5} \\
    \text{b7} \\
    \text{b9} \\
    \text{b11} \\
    \text{b13} \\
\end{array} \]

\( \text{etc.} \)
\[ \begin{array}{c}
    \text{b3} \\
    \text{b5} \\
    \text{b7} \\
    \text{b9} \\
    \text{b11} \\
    \text{b13} \\
\end{array} \]

\( \text{with or without sharp-11} \)

\( \text{C}_9 \text{ or } \text{C}_9 \text{(b11)} \)
\[ \begin{array}{c}
    \text{b3} \\
    \text{b5} \\
    \text{b7} \\
    \text{b9} \\
    \text{b11} \\
    \text{b13} \\
\end{array} \]

\( \text{etc.} \)
\[ \begin{array}{c}
    \text{b3} \\
    \text{b5} \\
    \text{b7} \\
    \text{b9} \\
    \text{b11} \\
    \text{b13} \\
\end{array} \]

\( \text{with or without sharp-11} \)
Worksheet Packet #2: Minor

Scale
Write all scales up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Arpeggio
Write all arpeggios up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Chords
Write chord voicings as in the example given.
Keep voicings centered around middle C.
Play all chords on the piano, listen, become familiar with the sound of the jazz voicing.
Play the companion scale, arpeggio, and pattern.

Patterns
Several examples are given with the chord most appropriate to the pattern included.
Find two patterns that are specific to the quality (minor). Sources might include a transcription, a jazz improvisation textbook, Aebersold play-a-long series, a book on jazz patterns such as Jerry Coker’s Pattern for Jazz, a reputable professional (i.e. Aaron Miller, Ryan Nielsen, Mark Watkins, Jay Lawrence, Keith Phillips, Justin Nielsen, or a visiting guest).
Include the appropriate chord symbol and pattern source.
Add patterns to the log to increase vocabulary.
Scale

Example:
Arpeggio

Example:

```
C# E

Bb Eb

Ab G#

Db C#

Gb F#

B E

A D

G
```
Chord

C-9  F-9  Bb-9  Eb-9  Ab-9

G#-9  Db-9  C#-9  Gb-9  F#-9

B-9  E-9  A-9  D-9  G-9

chord tones
Patterns (treble)

Examples:

\[c-9\]
\[c-7\]
\[c-11\]
Patterns (bass)

Examples:

\[ \text{C-9} \quad \begin{array}{c}
\text{b7} \\
\text{b3}
\end{array} \quad \begin{array}{c}
\text{C-13} \\
\text{b7} \\
\text{b3}
\end{array} \quad \begin{array}{c}
\text{C-7} \\
\text{b7} \\
\text{b3}
\end{array} \quad \begin{array}{c}
\text{C-11} \\
\text{b7} \\
\text{b3}
\end{array} \]

or

\[ \text{C-11} \quad \begin{array}{c}
\text{b7} \\
\text{b3}
\end{array} \]

\[ \text{C-7} \quad \begin{array}{c}
\text{b7} \\
\text{b3}
\end{array} \]
Worksheet Packet #3: Dominant

Scale

Write all scales up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Arpeggio

Write all arpeggios up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Chords

Write chord voicings as in the example given.
Keep voicings centered around middle C.
Play all chords on the piano, listen, become familiar with the sound of the jazz voicing.
Play the companion scale, arpeggio, and pattern.

Patterns

Several examples are given with the chord most appropriate to the pattern included.
Find two patterns that are specific to the quality (dominant). Sources might include a transcription, a jazz improvisation textbook, Aebersold play-a-long series, a book on jazz patterns such as Jerry Coker’s *Pattern for Jazz*, a reputable professional (i.e. Aaron Miller, Ryan Nielsen, Mark Watkins, Jay Lawrence, Keith Phillips, Justin Nielsen, or a visiting guest).
Include the appropriate chord symbol and pattern source.
Add patterns to the log to increase vocabulary.
Scale

Example:

C

F

B♭

Eb

Ab

G♯

Db

C♯

Gb

F♯

B

E

A

D

G
Arpeggio

Example:

\( \text{C} \rightarrow \text{F} \rightarrow \text{Bb} \rightarrow \text{E} \rightarrow \text{Ab} \rightarrow \text{G}\# \rightarrow \text{Db} \rightarrow \text{C}\# \rightarrow \text{Gb} \rightarrow \text{F}\# \rightarrow \text{B} \rightarrow \text{E} \rightarrow \text{A} \rightarrow \text{D} \rightarrow \text{G} \)
Chord

C₉  F₉  B₉  E₉  A₉

G₉  D₉  A₉  G₉  F₉

B₉  E₉  A₉  D₉  G₉
Patterns (treble)

Examples:

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]

\[ \text{C7 or C9} \]
Patterns (bass)

Examples:
Worksheet Packet #4: Chromaticism

Pick-up and Passing Notes

Chromatic Pickup Note: Any desired note of emphasis, usually a chord tone, can be approached by 1/2 step either above or below.
Passing Tone: 1/2 steps can connect chord tones within a chord, as in the bebop scales, or between chords as below.

Transpose pattern example in 12 keys.
Include chord symbols.
Do not use enharmonics.

Scale

Write all scales up to the 9th and down.
Do not use key signatures.
Include accidentals ascending and descending.

Diatonic Enclosure

Precede chord tone by the diatonic scale tone above and 1/2 step below.
Transpose pattern example in 12 keys.

Chromatic Enclosure

Precede chord tone by 1/2 above and 1/2 step below, or visa versa.
Transpose pattern example in 12 keys.

Inclusive Pattern

Notice in the example that this contrived pattern includes both chromatic passing tones and enclosures.
Transpose pattern example in 12 keys.
Pick-up and Passing Notes

Example:

E-7  B-7  G  E-7  B-7  G

Pickup  Passing  Pickup  Passing
Be-bop Scale: Dominant

Example:

```
Bb7  Bb7
C    F

Bb   Eb

Ab   G#

Db   C#

Gb   F#

B    E

A    D

G
```
Be-bop Scale: Major

Example:
Be-bop Scale: Minor

Examples:

C  F
Bb  Eb
Ab  G#
Db  C#
Gb  F#
B  E
A  D
G
Enclosure: Diatonic

Examples:

\[ \text{Example 1} \]

\[ \text{Example 2} \]
Enclosure: Chromatic

Example:
Inclusive Pattern

Example:

\[
\begin{array}{cccccc}
\text{ii V7 I} & 6 & 1 & 6 & 6 & 7 & 5 \\
\text{D7 (blues)} & 3 & 5 & 3 & 1 & 7 & 5 \\
A-7 or D7 & 3 & 3 & 3 & 3 & 3 & 3 \\
\end{array}
\]

Transpose above pattern in 12 keys.
Worksheet Packet #5: ii V7 I

ii V7 I Voicings

Write chord voicings as in the example given.  
Keep voicings centered around middle C.  
Follow the sequence indicated.  
Play all chords on the piano, listen, become familiar with the sound of the ii V7 I.

Voicing options are provided for:

   Shell
   3-note
   4-note

Patterns

Several examples are given with the chord most appropriate to the pattern included.  
Find two patterns that are specific to the quality (major). Sources might include a transcription, a jazz improvisation textbook, Aebersold play-a-long series, a book on jazz patterns such as Jerry Coker’s *Pattern for Jazz*, a reputable professional (i.e. Aaron Miller, Ryan Nielsen, Mark Watkins, Jay Lawrence, Keith Phillips, Justin Nielsen, or a visiting guest).  
Include the appropriate chord symbol and pattern source.  
Add patterns to the log to increase vocabulary.

Worksheets for one and two measure ii V7 I patterns are provided.
ii V7 I: shell voicing
ii V7 I: 3-note
ii V7 I: 4-note
Patterns: 1-measure (treble)

Examples:

```
C-7 G7 C67
C-7 G7 C67
C-7 G7 C67
C-7 G7 C67
C-7 G7 C67
C-7 G7 C67
C-7 G7 C67
C-7 G7 C67
```

Patterns: 1-measure (bass)

Examples:
Patterns: 2-measure (treble)

Examples:
Patterns: 1-measure (bass)

Examples: