

Bass 101

Roots, Fifths and Connecting the Dots



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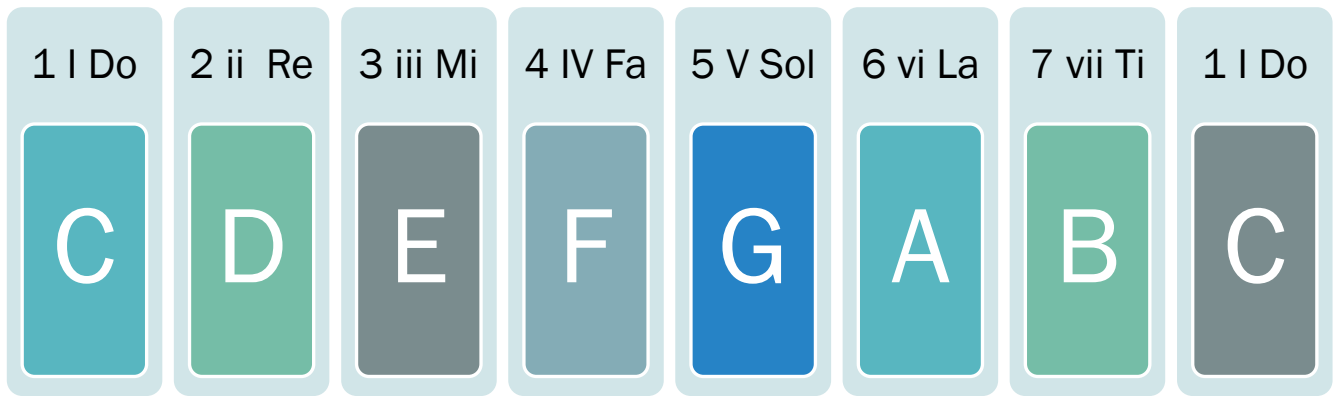
Scales, Arpeggios & Chromatics

There are three primary building blocks for constructing bass lines:

- Scales – A scale is a specific set of notes from which the melody and chords of a song are derived.
- Arpeggios – These are the notes belonging to a specific chord.
- Chromatics – There are passing notes which sit between the notes of a scale or arpeggio. For example, C# is a chromatic sitting between the notes, C and D.

The Major Scale

A *scale* is a specific set of notes within an octave. For this class, we'll be working with the *C Major* scale. The C Major scale contains the following notes:



In addition to their letter names, the degrees of the scale are named by the following systems:

System:

Nashville

Roman Numeral

Solfege

Example:

1,2,3, etc.


I,II,III, etc.

do, re, mi, etc.

The Major Scale

Let's play the C major scale up and back down in first position.

C D E F G A B C



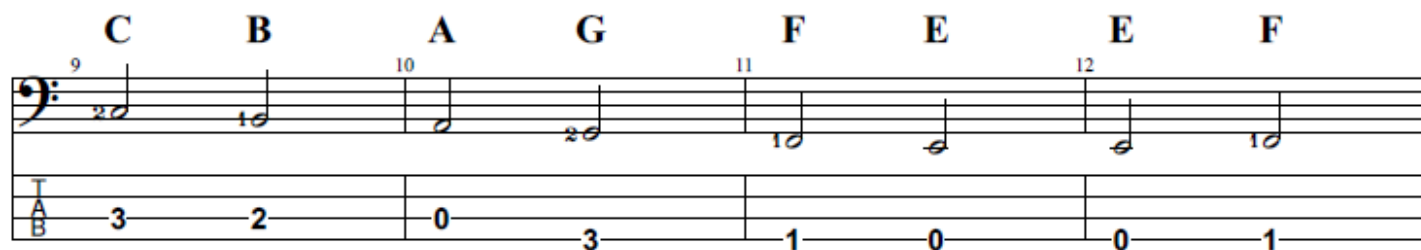
3 0 2 3

C B A G F E D C



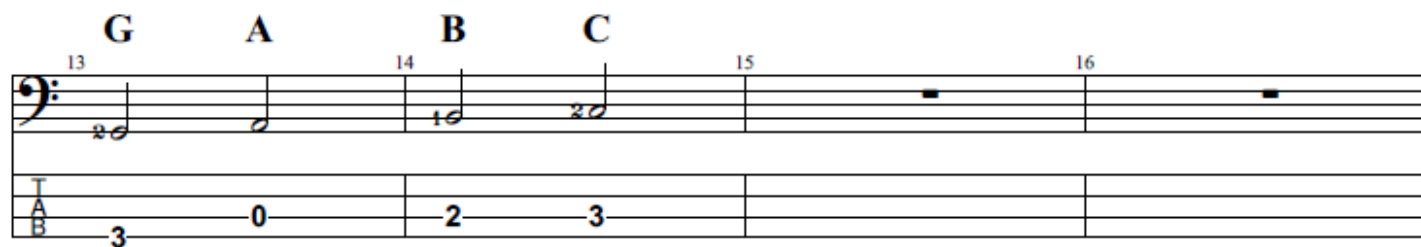
5 4 2 0

C B A G F E E F



3 2 0 3 1 0 0 1

G A B C



3 0 2 3

Play through this slowly, while tapping your foot and saying the notes in your mind while you play them. Now, try it without looking at the paper.

Test yourself

Play the following note sequences:

C D G C

C A D G

C C# D G

C G F F#

The #'s (sharps) are one fret above their natural letter.

The Major Scale in

roots and fifths A *root* note is the note for which a chord is named. A *fifth* is the note which can be found four scale degrees up or three scale degrees down from the current root.

Fifths Ex. 1: Four scale degrees up

The image displays four systems of musical notation for the exercise 'Fifths Ex. 1: Four scale degrees up'. Each system consists of a bass clef staff with notes and a guitar fretboard diagram below it. The notes are half notes, and the fretboard diagrams show the fret numbers for the root and fifth notes of each chord.

System 1: Chords E, F, G, A. Fret numbers: E (0, 2), F (1, 3), G (3, 5), A (0, 2). Scale degrees: 25, 26, 27, 28.

System 2: Chords C, D, E, F. Fret numbers: C (3, 5), D (5, 7), E (7, 9), F (3, 5). Scale degrees: 29, 30, 31, 32.

System 3: Chords G, A, A, G. Fret numbers: G (5, 7), A (7, 9), A (7, 9), G (5, 7). Scale degrees: 33, 34, 35, 36.

System 4: Chords F, E, D, C. Fret numbers: F (3, 5), E (7, 9), D (5, 7), C (3, 5). Scale degrees: 37, 38, 39, 40.

The Major Scale in roots & fifths

Roots and fifths are belonging to the current chord or *arpeggio* as well as the scale.

Fifths Ex. 2: three scale degrees down

The image displays a musical exercise titled "Fifths Ex. 2: three scale degrees down". It consists of three systems of musical notation, each for a different chord. Each system includes a bass line with a treble clef and a guitar fretboard diagram below it. The fretboard diagrams show the fret numbers for the strings (E, A, B, G, D, E) to produce the root and fifth of the chord. The exercise is divided into measures, with measure numbers 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, and 48 indicated above the notes.

Measure	Chord	Fret 1	Fret 2	Fret 3	Fret 4	Fret 5	Fret 6
37	C	3	3				
38	D	0	0				
39	E	2	2				
40	F	3	3				
41	G	0	0				
42	A	2	2				
43	A	2	2				
44	G	0	0				
45	F	3	3				
46	E	2	2				
47	D	0	0				
48	C	3	3				

Roots and fifths are essential to playing the bass, as they form the majority of all bass lines, especially those made from *half notes*.

Test yourself

Play roots and fifths for each chord in the following *chord* sequences:

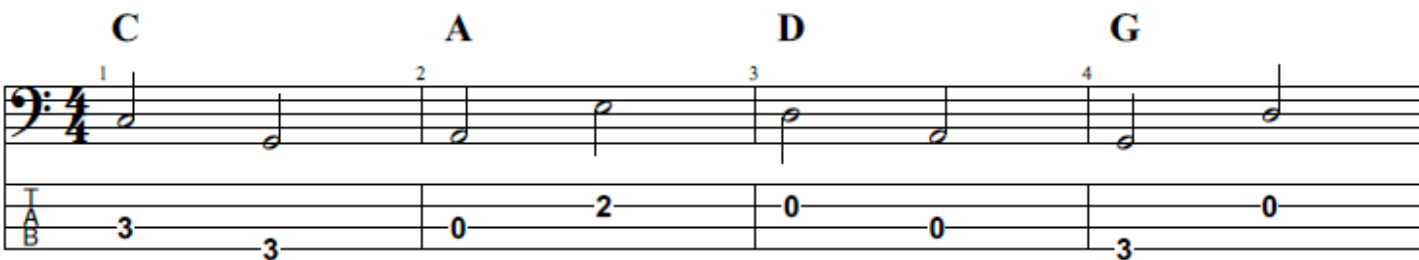
D G C A

C A D G

Half Notes

are defined by their duration, which is two beats.

Half note rule 1: If 1 chord per measure, play the 1 and 5 of each chord.



Musical notation for Half Note Rule 1. The piece is in 4/4 time. The bass clef staff shows four measures, each containing a half note. Above the staff, the chords are labeled C, A, D, and G. Measure 1 (C) has a half note on the 1st line (C4) and a 3rd fret on the 3rd string. Measure 2 (A) has a half note on the 2nd line (A3) and a 2nd fret on the 2nd string. Measure 3 (D) has a half note on the 3rd line (D3) and an open 1st string. Measure 4 (G) has a half note on the 4th line (G3) and a 3rd fret on the 3rd string. The guitar staff below shows the fretting: 3-3 for C, 0-2 for A, 0-0 for D, and 3-0 for G.

Half note rule 2: If 2 chords per measure, play the 1 (root) of each chord.



Musical notation for Half Note Rule 2. The piece is in 4/4 time. The bass clef staff shows eight measures, each containing two half notes. Above the staff, the chords are labeled C, A, D, G, C, A, D, and G. Measure 5 (C) has a half note on the 1st line (C4) and a 3rd fret on the 3rd string. Measure 6 (A) has a half note on the 2nd line (A3) and an open 2nd string. Measure 7 (D) has a half note on the 3rd line (D3) and an open 1st string. Measure 8 (G) has a half note on the 4th line (G3) and a 3rd fret on the 3rd string. The guitar staff below shows the fretting: 3-0 for C, 0-3 for A, 0-3 for D, 3-0 for C, 0-3 for A, 0-3 for D, and 3-0 for G.

Quarter Notes

are defined by their duration, which is one beat.

Quarter Note Rule 1 (1 chord per bar):
Play the root on beats 1 & 2,
the 5 on beats 3 & 4.

Musical notation for Quarter Note Rule 1 in 4/4 time. The notation is written on a bass clef staff with a 4/4 time signature. The key signature is C major. The melody consists of quarter notes: C4 (beat 1), E4 (beat 2), G4 (beat 3), and B4 (beat 4). The bass line consists of quarter notes: C3 (beat 1), C3 (beat 2), G2 (beat 3), and G2 (beat 4). Above the staff, the chords C, A, D, and G are indicated above the first, second, third, and fourth bars respectively. The first bar is labeled with a '1' above the first note. The second bar is labeled with a '2' above the first note. The third bar is labeled with a '3' above the first note. The fourth bar is labeled with a '4' above the first note. The bass line is written on a separate staff below the main staff, with fret numbers 3, 3, 3, 3 for the first bar, 0, 0, 2, 2 for the second bar, 0, 0, 0, 0 for the third bar, and 3, 3, 0, 0 for the fourth bar.

Quarter Note Rule 2 (2 chords per bar):
Play the roots on beats 1,2,3 4.

Musical notation for Quarter Note Rule 2 in 4/4 time. The notation is written on a bass clef staff with a 4/4 time signature. The key signature is C major. The melody consists of quarter notes: C4 (beat 1), E4 (beat 2), G4 (beat 3), and B4 (beat 4). The bass line consists of quarter notes: C3 (beat 1), C3 (beat 2), G2 (beat 3), and G2 (beat 4). Above the staff, the chords C, A, D, G, C, A, D, and G are indicated above the first, second, third, fourth, fifth, sixth, seventh, and eighth bars respectively. The first bar is labeled with a '5' above the first note. The second bar is labeled with a '6' above the first note. The third bar is labeled with a '7' above the first note. The fourth bar is labeled with an '8' above the first note. The bass line is written on a separate staff below the main staff, with fret numbers 3, 3, 0, 0 for the first bar, 0, 0, 3, 3 for the second bar, 3, 3, 0, 0 for the third bar, and 0, 0, 3, 3 for the fourth bar.

Quarter Notes are the cornerstone of *walking bass lines*. Rules 3 and 4 can be used to add movement to your walking bass lines.

Quarter Note Rule 3(1 chord per bar):
Play the root on beat 1,
the 5 on beat 3
and connect the dots on beats 2 and 4.



Musical notation for Quarter Note Rule 3 (1 chord per bar) in 4/4 time. The key signature has one sharp (F#). The notation consists of a bass staff and a guitar fretboard diagram below it. Chords are indicated above the staff: C, A, D, G. The bass staff shows quarter notes on beats 1, 2, 3, and 4. The fretboard diagram shows fingerings for each beat: Beat 1 (C): 3-0-3-4; Beat 2 (A): 0-3-2-1; Beat 3 (D): 0-3-0-4; Beat 4 (G): 3-2-0-4.

Quarter Note Rule 4 (2 chords per bar):
Play the roots on beats 1 and 3
and connect the dots on beats 2 and 4.



Musical notation for Quarter Note Rule 4 (2 chords per bar) in 4/4 time. The key signature has one sharp (F#). The notation consists of a bass staff and a guitar fretboard diagram below it. Chords are indicated above the staff: C, A, D, G, C, A, D, G. The bass staff shows quarter notes on beats 1, 2, 3, and 4. The fretboard diagram shows fingerings for each beat: Beat 1 (C): 3-2-0-4; Beat 2 (A): 0-0-3-2; Beat 3 (D): 3-2-0-4; Beat 4 (G): 0-0-3-2.

At this point you are probably wondering, “*How do I connect the dots, though?*”.

Connecting the Dots

these rules are based on a starting point (X) and your end point (Z).

Rule 1: If there is only a chromatic between X and Z, then play the chromatic.

The image shows two musical staves in bass clef, 4/4 time, illustrating Rule 1. The first staff shows four measures with chords C, A, D, and G. The second staff shows eight measures with chords C, A, D, G, C, A, D, and G. Blue circles highlight the chromatic connections between the 4th fret of the 4th string in measures 1, 2, 3, and 5.

Staff 1:

- Measure 1: Chord C (1 3 0 3). Fret 4 on the 4th string is circled.
- Measure 2: Chord A (0 3 2 1). Fret 1 on the 4th string is circled.
- Measure 3: Chord D (0 3 0 4). Fret 4 on the 4th string is circled.
- Measure 4: Chord G (3 2 0 4). Fret 4 on the 4th string is circled.

Staff 2:

- Measure 5: Chord C (3 2 0 4). Fret 4 on the 4th string is circled.
- Measure 6: Chord A (0 0 3 2).
- Measure 7: Chord D (3 2 0 4). Fret 4 on the 4th string is circled.
- Measure 8: Chord G (0 0 3 2).

Connecting the Dots

these rules are based on a starting point (X) and your end point (Z).

Rule 2: If there is one or more scale notes between X and Z, then play a scale note.

The image displays two rows of musical notation, each consisting of a staff with a key signature of one sharp (F#) and a 4/4 time signature. The first row shows four chords: C, A, D, and G. The second row shows eight chords: C, A, D, G, C, A, D, and G. Below each staff is a fretboard diagram with six strings and fret numbers. Red circles highlight specific fret numbers on the diagrams: 0, 0, 3, 2 in the first row; and 2, 0, 2, 2, 2, 0, 0, 2 in the second row.

If you have more than one scale note to choose from, then either will work. Use your ears to decide which is best.

Test yourself

Play roots and fifths for the following *chord* sequences:

C A D G

C F C C