SCALES AND CHORDS FOR THE UPRIGHT BASS

The following keys should be learned in the order presented. All diagrams show the neck "standing up". (Strings are vertical while imaginary frets are shown horizontally.) The suggested fingering for the scale is to the left of the diagram. Practice the scale until you can play it continuously and fluently.

Smaller diagrams to the right are the chords of the key derived from the scale. The technical name for this group of chords is the *diatonic progression*. There are three major chords (1, 4, and 5) and three minor chords (2m, 3m, and 6m). The suggested fingering for each chord is to the left of the diagrams. The spelling (root-third-fifth) of each chord is below the diagram. I recommend you learn the major chords first. This will allow you to play hundreds of songs right away.

KEY OF C

The key of C has no sharps and no flats. You will be unable to play a complete C scale unless you change position with the fourth finger on string 1. (This is not necessary, unless it drives you crazy by not completing the scale.) Practice ascending from C to B, then back down. Repeat non-stop until it becomes fluent. Then practice the lower partial scale, descending from C to E, then back up. (Observe that the first finger plays the F-note on the fourth string.) Repeat non-stop until it becomes fluent.

This course will deal with alternating 1(root)-5(fifth) bass parts. However, in the long
run it is a good idea to learn the complete chord arpeggio (all 1-3-5's) for variety. Learn the major chords first, then the minor chords.

The number of possible 1-5 bass parts depends upon how many roots and fifths are available in each chord. The C and Dm chords each have one root and two fifths available allowing you to play two possible 1-5 bass parts. The F and G chords each have two roots and one fifth available. This also will allow you to play two possible 1-5 bass parts. The Em and Am chords have two roots and two fifths available allowing you to play three possible bass parts. The following is a summary in the key of C.

<table>
<thead>
<tr>
<th>CHORD</th>
<th>1-3-5</th>
<th>POSSIBLE 1-5 BASS LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. C</td>
<td>C-E-G</td>
<td>C-lowG</td>
</tr>
<tr>
<td>2. Dm</td>
<td>D-F-A</td>
<td>D-lowA</td>
</tr>
<tr>
<td>3. Em</td>
<td>E-G-B</td>
<td>lowE-lowB, highE-lowB</td>
</tr>
<tr>
<td>4. F</td>
<td>F-A-C</td>
<td>lowF-C</td>
</tr>
<tr>
<td>5. G</td>
<td>G-B-D</td>
<td>lowG-D</td>
</tr>
<tr>
<td>6. Am</td>
<td>A-C-E</td>
<td>lowA-lowE, lowA-highE, highA-highE</td>
</tr>
</tbody>
</table>

**COUNTING MEASURES**

Most songs have four beats to a measure and most songs are made up of four-measure pieces. Practice counting four-measure pieces as follows (recite out loud until fluent):

```
“1-2-3-4  2-3-4  3-2-3-4  4-2-3-4”
```

When the counting is to the point of a "no-brainer" then play a root-fifth C-chord. While continuing to count play the root on the first beat and the fifth on the third beat. This method of counting and playing a single chord must become a "no-brainer" before you advance to the next phase.

```
count  1 2 3 4  2 3 4  3 2 3 4  4 2 3 4
bass line  1  5  1  5  1  5  1  5
          1  1  1  1
```

The bass player is the heart of the band. A steady bass player can keep other players in line so practice with a metronome to develop steady timing. (Tapping your foot on beats one and three is also a good idea.)

Here's the next phase!

**Progression 1**: Practice the following 16-measure progression continuously while counting and changing chords every four measures. (Always play a root on the first
beat and a fifth on the third beat.) Memorize and work out variations.

<table>
<thead>
<tr>
<th>count</th>
<th>1 - 2 - 3 - 4</th>
<th>2 - 2 - 3 - 4</th>
<th>3 - 2 - 3 - 4</th>
<th>4 - 2 - 3 - 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>bass line</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Progression 2**: Practice the following 8-measure progression while counting and changing chords every two measures. Memorize and work out variations.

<table>
<thead>
<tr>
<th>count</th>
<th>1 - 2 - 3 - 4</th>
<th>2 - 2 - 3 - 4</th>
<th>3 - 2 - 3 - 4</th>
<th>4 - 2 - 3 - 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>bass line</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Progression 3**: Practice the following 4-measure progression while counting and changing chords every measure. Memorize and work out variations.

<table>
<thead>
<tr>
<th>count</th>
<th>1 - 2 - 3 - 4</th>
<th>2 - 2 - 3 - 4</th>
<th>3 - 2 - 3 - 4</th>
<th>4 - 2 - 3 - 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>bass line</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

**TWO-CHORD SONGS**

The following simple songs can be played using just the 1- and 5-chords. Play a root on the first beat of the measure and a fifth on the third beat. Memorize each progression and use variations.

This 8-measure progression is good for all of the following songs: MARY HAD A LITTLE LAMB, LONDON BRIDGE, BUFFALO GALS, GO TELL AUNT RHODY, LONG LONG AGO.

<table>
<thead>
<tr>
<th>count</th>
<th>1 - 2 - 3 - 4</th>
<th>2 - 2 - 3 - 4</th>
<th>3 - 2 - 3 - 4</th>
<th>4 - 2 - 3 - 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

**SKIP TO MY LOU** and **HE'S GOT THE WHOLE WORLD** uses this chord progression.

<table>
<thead>
<tr>
<th>count</th>
<th>1 - 2 - 3 - 4</th>
<th>2 - 2 - 3 - 4</th>
<th>3 - 2 - 3 - 4</th>
<th>4 - 2 - 3 - 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>
The following progression is good for ACHY BREAKY HEART, TOM DOOLEY, POLLY WOLLY DOODLE, and TAKE ME BACK TO TULSA. (This progression is called a "reversal", the second half is the opposite of the first.)

\[
\begin{array}{cccc}
\text{count} & 1 & 2 & 3 & 4 \\
1 & 1 & 1 & 5 & 5 \\
5 & 5 & 5 & 1 & 1 \\
\end{array}
\]

The following songs are reversals.

\[
\begin{array}{cc}
\text{JAMBA LAYA} & \text{OHIE FROM MUSKOGEE} \\
1 & 1 & 5 & 5 & 1 & 1 & 1 & 1 \\
5 & 5 & 1 & 1 & 1 & 5 & 5 & 5 \\
1 & 1 & 5 & 5 & 5 & 5 & 5 & 5 \\
5 & 5 & 1 & 1 & 5 & 1 & 1 & 1 \\
\end{array}
\]

The following 4-measure progression is SHORTNIN' BREAD and FARMER IN THE DELL. Observe that measure 4 is split in half--two beats on the 5-chord, two beats on the 1-chord. When this happens play the root of each chord. (From now on small letters will indicate the bass line only during measures where there may be confusion)

\[
\begin{array}{cccc}
\text{count} & 1 & 2 & 3 & 4 \\
1 & 1 & 1 & 5 & 1 & 1 \\
\end{array}
\]

A song with several "split-measures" is SHOO FLY.

\[
\begin{array}{cccc}
\text{count} & 1 & 2 & 3 & 4 \\
1 & 5 & 1 & 1 & 1 & 5 & 1 & 1 \\
1 & 5 & 1 & 1 & 1 & 5 & 1 & 1 \\
\end{array}
\]

THREE-CHORD SONGS

Hundreds of songs can be played using the 1-, 4- and 5-chords. Examples are:

\[
\begin{array}{cccc}
\text{MIDNIGHT SPECIAL} & \text{BOIL THEM CABBAGE DOWN} \\
4 & 4 & 1 & 1 & 1 & 4 & 1 & 5 \\
5 & 5 & 1 & 1 & 1 & 5 & 1 & 1 \\
\end{array}
\]
The following are variations of the 12-bar (12-measure) blues, a common progression for many early rock and roll songs. (The last 5-chord in progression 1 is optional.)

<table>
<thead>
<tr>
<th>MT. DEW</th>
<th>ROLL IN MY SWEET BABY'S ARMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1 1 1</td>
<td>1 1 1 1</td>
</tr>
<tr>
<td>4 4 1 1</td>
<td>1 1 5 5</td>
</tr>
<tr>
<td>1 1 1 1</td>
<td>1 1 4 4</td>
</tr>
<tr>
<td>1 5 1 1</td>
<td>5 5 1 1</td>
</tr>
</tbody>
</table>

Popular 12-bar blues songs are BLUES STAY AWAY (progression 1), HOUND DOG (2), JOHNNY B. GOODE (1), KANSAS CITY (3), MIND YOUR OWN BUSINESS (2), ROCK AROUND THE CLOCK (1), ROLL OVER BEETHOVEN (2 & 3)

**COUNTING 3-BEAT MEASURES**

A song with three beats per measure is called a *waltz*. A waltz has a distinct boom-chuck-chuck rhythm with a heavy accent on the first beat. Practice counting four-measure pieces as follows (recite it out loud):

```
1 - 2 - 3 2 - 2 - 3 3 - 2 - 3 4 - 2 - 3
```

After the counting becomes effortless play a C-chord, alternating between the root and fifth on the first beat of each measure. This method of counting and playing a single chord must become a no-brainer before you advance to the next phase.

```
count 1 - 2 - 3 2 - 2 - 3 3 - 2 - 3 4 - 2 - 3
1   15  15  11  15
4   45  45  41  45
1   15  15  11  15
5   55  55  55  55
```

And here's the next phase . . .

**Progression 1**: Practice this 16-measure progression continuously while counting and changing chords every four measures.
Progression 2: Practice this 8-measure progression while counting and changing chords every two measures.

\[
\text{count} \quad \begin{array}{cccc}
1 - 2 - 3 & 2 - 2 - 3 & 3 - 2 - 3 & 4 - 2 - 3 \\
1 & 1 & 4 & 4 \\
1 & 1 & 5 & 5 \\
\end{array}
\]

Progression 3: When the chord changes after one measure play only the root. Practice this 4-measure progression while counting and changing chords every measure.

\[
\text{count} \quad \begin{array}{cccc}
1 - 2 - 3 & 2 - 2 - 3 & 3 - 2 - 3 & 4 - 2 - 3 \\
1 & 4 & 1 & 1 \\
1 & 5 & 5 & 5 \\
\end{array}
\]

Here are some familiar songs in 3/4 time.

**ON TOP OF OLD SMOKEY (3/4)**

\[
\begin{array}{cccc}
4 & 4 & 4 & 4 \\
1 & 1 & 1 & 1 \\
1 & 1 & 1 & 1 \\
\end{array}
\]

**AMAZING GRACE (3/4)**

\[
\begin{array}{cccc}
1 & 1 & 4 & 1 \\
1 & 1 & 5 & 5 \\
1 & 1 & 4 & 1 \\
1 & 5 & 1 & 1 \\
\end{array}
\]

**CLEMENTINE (3/4)**

\[
\begin{array}{cccc}
1 & 1 & 1 & 5 \\
1 & 1 & 5 & 1 \\
\end{array}
\]

Measure seven of HAPPY BIRTHDAY contains two chords. Sustain the 1-chord for two beats (the "slash" indicates another beat of 1) and play the 5-chord on the third beat.

**HAPPY BIRTHDAY (3/4)**

\[
\begin{array}{cccc}
1 & 5 & 5 & 1 \\
1 & 4 & 1 & 1 \\
1 & 5 & 1 & 1 \\
\end{array}
\]

**DIATONIC SONGS**
A song written using only chords from the standard chord formula derived from a major scale (1, 2m, 3m, 4, 5, 6m, 7° or 57) is said to be *diatonic*. If a song uses only the three major chords in a key (1, 4, & 5) the changes are fairly easy to hear and anticipate. (At the very least you have a 50% chance of changing to the right chord from wherever you are!) Songs become more complicated when minor chords (2m, 3m, & 6m) are introduced. It is simple to tell the difference between a major and minor chord when played out of context (major chords are "happy", minor chords are "sad"). However, in the context of a key it is sometimes difficult to tell them apart. This is not negative, rather minor chords add variety to songs. With experience you will soon learn to play and discern all of the chord changes within a key.

The following 4-measure progressions utilize minor chords in typical fashion.

1.) 1  6m  4  5  
2.) 1  6m  2m  5  
3.) 1  3m  4  5  
4.) 1  3m  2m  5  
5.) 1  5  6m  4  
6.) 1  2m  5  1  
7.) 1  2m  4  5  
8.) 1  2m  6m  5

If you learn to hear the changes in this progression you will be able to interpret hundreds of songs on your own.

The Ultimate Progression

```
1   4   5   3m
6m  2m  5   1
4   5   3m  6m
2m  5   1   5
```

Process of Elimination and Frequency of Use

When you are interpreting (by ear) chord changes involving minor chords use the following procedure. Try the 6m chord first as it is used far more often than the other minor chords. If that doesn't fly try the 2m which is used the second most often. If neither the 6m or 2m work try the 3m, the least-used minor chord. If none of them work the song may be using an accidental chord, one that is outside of the key.

KEY OF G
The key of G has one sharp (F#). Play a complete scale ascending from the low G on string 4 to the high G on string 1 then back down. Repeat non-stop until it becomes fluent. (When playing all notes in the position observe that strings 4 & 3 are fingered the same as are strings 2 & 1.)

NOTE: Strings 4-3-2 of the G scale form the SAME FINGERING PATTERN as strings 3-2-1 of the C scale. (The G scale is the C scale transposed from string 3 to string 4.)

The key of G has four chords in common with the key of C (G, C, Em, and Am). The two new chords are D and Bm. As long as you are only playing 1-5 bass parts the D-chord will be the same as the Dm. However, the Bm-chord will be totally new. Below is a summary of chords and possible 1-5 bass lines in the key of G.

<table>
<thead>
<tr>
<th>CHORD</th>
<th>1-3-5</th>
<th>Possible 1-5 Bass Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Bm</td>
<td>B–D–F#</td>
<td>low B–low F#, low B–high F#, high B–high F#</td>
</tr>
<tr>
<td>5. D</td>
<td>D–F#–A</td>
<td>D–low A, D–high A</td>
</tr>
</tbody>
</table>

(Play all the previous progressions in the key of G.)

KEY OF D

The key of D has two sharps (F# & C#). You cannot complete a D scale in this position. Descending from D will allow you to play all the notes but a low D while ascending from D will allow you to play all notes but C# and high D. (When playing all
notes in the position observe that strings 3, 2, and 1 are fingered the same.)

NOTE: Strings 4-3-2 of the D scale form the SAME FINGERING PATTERN as strings 3-2-1 of the G scale. (The D scale is the G scale transposed from string 1 to string 2.)

The key of D has four chords in common with the key of G (D, G, Bm, and Em). The two new chords are A and F#m. As long as you are only playing 1-5 bass parts the A-chord will be the same as the Am. The F#m-chord will be totally new. Below is a summary of chords and possible 1-5 bass lines in the key of D.

<table>
<thead>
<tr>
<th>CHORD</th>
<th>1-3-5</th>
<th>POSSIBLE 1-5 BASS LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. D</td>
<td>D-F#-A</td>
<td>D-lowA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D-highA</td>
</tr>
<tr>
<td>2. Em</td>
<td>E-G-B</td>
<td>lowE-lowB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highE-lowB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highE-highB</td>
</tr>
<tr>
<td>3. F#m</td>
<td>F#-A-C#</td>
<td>lowF#-C#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highF#-C#</td>
</tr>
<tr>
<td>4. G</td>
<td>G-B-D</td>
<td>lowG-D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highG-D</td>
</tr>
<tr>
<td>5. A</td>
<td>A-C#-E</td>
<td>lowA-lowE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lowA-highE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highA-highE</td>
</tr>
<tr>
<td>6. Bm</td>
<td>B-D-F#</td>
<td>lowB-lowF#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lowB-highF#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>highB-highF#</td>
</tr>
</tbody>
</table>

(Play all the previous progressions in the key of D.)

KEY OF A

The key of A has three sharps (F#, C#, & G#). You can play a complete scale in this position. Use the first finger to play both the G# and the A on the first string. (When playing all notes in the position observe that strings 4, 3, and 2 are fingered the same.)

NOTE: Strings 4-3-2 of the A scale form the SAME FINGERING PATTERN as strings 3-2-1 of the D scale. (The A scale is the D scale transposed from string 2 to string 3.)
The key of A has four chords in common with the key of D (A, D, F#m, and Bm). The two new chords are E and C#m. As long as you are only playing 1-5 bass parts the E-chord will be the same as Em. The C#m-chord is new. Below is a summary of chords and possible 1-5 bass lines in the key of A.

<table>
<thead>
<tr>
<th>CHORD</th>
<th>1-3-5</th>
<th>POSSIBLE 1-5 BASS LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A</td>
<td>A-C#-E</td>
<td>low A--low E</td>
</tr>
<tr>
<td>2. Bm</td>
<td>B-D-F#</td>
<td>low B--low F#</td>
</tr>
<tr>
<td>3. C#m</td>
<td>C#-E-G#</td>
<td>low C#--low G#</td>
</tr>
<tr>
<td>4. D</td>
<td>D-F-A</td>
<td>high D--high A</td>
</tr>
<tr>
<td>5. E</td>
<td>E-G-B</td>
<td>low E--low B</td>
</tr>
<tr>
<td>6. F#m</td>
<td>F-A-C#</td>
<td>low F#--C#</td>
</tr>
</tbody>
</table>

(Play all the previous progressions in the key of A.)

**KEY OF E**

The key of E has four sharps (F#, C#, G#, & D#). You can play a complete scale in this position. The fingering for the E major scale is identical to that of an A scale except that it will start upon string 4 instead of string 3. Use the first finger to play both D# and E on the second string. (When playing all notes in the position observe that strings 4 & 3 are fingered the same as are strings 2 & 1.)

**NOTE:** Strings 4-3-2 of the E scale form the SAME FINGERING PATTERN as strings 3-2-1 of the A scale. (The E scale is the A scale transposed from string 3 to string 4.)
The key of E has four chords in common with the key of A (E, A, C#m, and F#m). The two new chords are B and G#m. (As long as you are only playing 1-5 bass parts the B-chord will be the same as Bm.)

The key of B has five sharps (F#, C#, G#, D#, and A#). You can play a complete scale in first position. The key of B has four chords in common with the key of E (B, E, G#m, and C#m). The two new chords are F# (F#-A#-C#) and D#m (D#-F#-A#).

<table>
<thead>
<tr>
<th>CHORD</th>
<th>1-3-5</th>
<th>POSSIBLE 1-5 BASS LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. E</td>
<td>E-G#-B</td>
<td>lowE-lowB</td>
</tr>
<tr>
<td>2. F#m</td>
<td>F#-A-C#</td>
<td>lowF#-C#</td>
</tr>
<tr>
<td>3. G#m</td>
<td>G#-D-#</td>
<td>lowG#-D#</td>
</tr>
<tr>
<td>4. A</td>
<td>A-C#-E</td>
<td>lowA-lowE</td>
</tr>
<tr>
<td>5. B</td>
<td>B-D-F#</td>
<td>lowB-lowF#</td>
</tr>
<tr>
<td>6. C#m</td>
<td>C-E-G#</td>
<td>C#-lowG#</td>
</tr>
</tbody>
</table>

(Play all the previous progressions in the key of E.)

The Key of B

By now you should know how to practice a key. (Learn the scale and the new chords then play the progressions.) For the next two keys I will only show the scale pattern and name the chords in the diatonic progression.

The key of B has five sharps (F#, C#, G#, D#, and A#). You can play a complete scale in first position. The key of B has four chords in common with the key of E (B, E, G#m, and C#m). The two new chords are F# (F#-A#-C#) and D#m (D#-F#-A#).


NOTE: Strings 4-3-2 of the B scale form the SAME FINGERING PATTERN as strings 3-2-1 of the E scale. (The B scale is the E scale transposed from string 2 to string 3.)
The Key of F#

The key of F# has six sharps (F#, C#, G#, D#, A#, and E#). The complete F# scale will be fingered the same as the B scale except that it starts upon the fourth string. The key of F# has four chords in common with the key of B (F#, B, D#m, and G#m). The two new chords are C# (C#-E#-G#) and A#m (A#-C#-E#).

NOTE: Strings 4-3-2 of the F# scale form the SAME FINGERING PATTERN as strings 3-2-1 of the B scale. (The F# scale is the B scale transposed from string 3 to string 4.)

THE CIRCLE OF FIFTHS

Keys should be learned in the order that they appear on the circle of fifths, the systematical arrangement of the twelve keys. When approached in this order the fingering for the scale and chords are transposed to neighboring strings. (This "scrolling" effect is an important consideration when learning scales and arpeggios on a stringed instrument.)

A major scale is constructed upon each of the twelve notes, creating twelve keys. Each key is identical in structure yet each is unique in the number of sharps or flats it contains.

Starting at the key of C and moving clockwise by intervals of fifths, a sharp is added to
each successive key until all seven notes are sharp (key of C#). The new sharp in each key is the seventh note of that particular scale. *Once a note is sharp it continues to be sharp in the remaining sharp-keys.* (New sharps are indicated with small letters inside the circle.)

Starting at the key of C and moving counterclockwise by intervals of fourths, a flat is added to each successive key until all seven notes are flat (key of Cb). The new flat in each key is the fourth note of that particular scale. *Once a note is flat it continues to be flat in the remaining flat-keys.* (New flats are indicated with small letters inside the circle.)

An overlapping of *enharmonic* (equivalent) keys occurs at three points on the circle of fifths (the keys of C#/Db, F#/Gb, and B/Cb).

![Circle of Fifths Diagram](image)

It is not important to learn every key. However, do learn the keys in which you are going to play. Most old-time music is played in C, G, D, and A. Bluegrass includes the keys of E, B, F, and Bb.

**Keys with Flats**

**KEY OF F**

The key of F has one flat (Bb). Practice ascending and descending the scale until fluent. (When playing all notes in the position observe that strings 4 & 3 are fingered the same as are strings 2 & 1.)
NOTE: Strings 3-2-1 of the F scale form the SAME FINGERING PATTERN as strings 4-3-2 of the C scale. (The F scale is the C scale transposed from string 3 to string 2.)

The key of F has four chords in common with the key of C (F, C, Dm, and Am). The two new chords are Bb and Gm. As long as you are only playing 1-5 bass lines Gm will be the same as the G. Bb will be new. Below is a summary of chords and possible 1-5 bass lines in the key of F.

<table>
<thead>
<tr>
<th>CHORD</th>
<th>1-3-5</th>
<th>POSSIBLE 1-5 BASS LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. F</td>
<td>F-A-C</td>
<td>low F-C, high F-C</td>
</tr>
<tr>
<td>2. Gm</td>
<td>G-Bb-D</td>
<td>low G-D, high G-D</td>
</tr>
<tr>
<td>3. Am</td>
<td>A-C-E</td>
<td>low A-low E, low A-high E, high A-high E</td>
</tr>
<tr>
<td>4. Bb</td>
<td>Bb-D-F</td>
<td>low Bb-low F, low Bb-high F, high Bb-high F</td>
</tr>
<tr>
<td>5. C</td>
<td>C-E-G</td>
<td>C-low G, C-high G</td>
</tr>
<tr>
<td>6. Dm</td>
<td>D-F-A</td>
<td>D-low A, D-high A</td>
</tr>
</tbody>
</table>

(Play all the previous progressions in the key of F.)

KEY OF Bb

The key of Bb has two flats (Bb & Eb). Practice ascending and descending the scale until fluent.

NOTE: Strings 3-2-1 of the Bb scale form the SAME FINGERING PATTERN as strings 4-3-2 of the F scale. (The Bb scale is the F scale transposed from string 4 to string 3.)
The key of Bb has four chords in common with the key of F (Bb, F, Gm, and Dm). The two new chords are Eb and Cm. As long as you are only playing 1-5 bass lines Cm will be the same as the C. Eb will be new. Below is a summary of chords and possible 1-5 bass lines in the key of F.

(Play all the previous progressions in the key of Bb.)

KEY OF Eb

The key of Eb has three flats (Bb, Eb, and Ab). You can play a complete scale in first position. The key of Eb has four chords in common with the key of Bb (Eb, Bb, Cm, and Gm). The two new chords are Ab (Ab-C-Eb) and Fm (F-Ab-C).


NOTE: Strings 3-2-1 of the Eb scale form the SAME FINGERING PATTERN as strings 4-3-2 of the Bb scale. (The Eb scale is the Bb scale transposed from string 3 to string 2.)
The key of Ab has four flats (Bb, Eb, Ab, and Db). It has four chords in common with the key of Eb (Ab, Eb, Fm, and Cm). The two new chords are Db (Db-F-Ab) and Bbm (Bb-Db-F).

NOTE: Strings 3-2-1 of the Ab scale form the SAME FINGERING PATTERN as strings 4-3-2 of the Eb scale. (The Ab scale is the Eb scale transposed from string 2 to string 1.)

The key of Db has five flats (Bb, Eb, Ab, Db, and Gb). It has four chords in common with the key of Ab (Db, Ab, Bbm, and Fm). The two new chords are Gb (Gb-Bb-Db) and Ebm (Eb-Gb-Bb).

NOTE: Strings 3-2-1 of the Db scale form the SAME FINGERING PATTERN as strings 4-3-2 of the Ab scale. (The Db scale is the Ab scale transposed from string 4 to string 3.)
SCALES AND CHORDS FOR THE UPRIGHT BASS

1  f  Db  Eb  Ab
2  Gb
3  C  F  Db
4  Ab  Db  Gb