

Chord Learner v1.0 User's Guide  
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Hello and welcome to Chord Learner. Whether you are a beginner or expert musician, you will find this program useful as a fun tool for learning, understanding, practicing, and improving your knowledge of chords. Having quick mental ability of knowing chord names and their notes can help you take your musical talent to the next level. If you play an instrument that uses chords you can improve your skills by playing Chord Learner. This program can help any musician at any level. Since this program is designed for a PC or mobile device, it has the added benefit of being able to go with you wherever you go. This user's guide outlines Features, How To Play, Games, Options, and a Simple Method For Building Chord Names & Chord Notes.

### **Features:**

- Learn 52 chord types based on triad, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 9<sup>th</sup>, 11<sup>th</sup>, and 13<sup>th</sup>
- Learn and practice chords from any combination of the 12 major keys
- Learn and practice naming a chord's notes, given a chord name
- Learn and practice naming a chord, given its notes
- Configurable hint button that can show the key that the chord is in, chord type, chord root's major scale, and chord formula for helping any level of musician
- Configurable key selection
- Configurable chord type selection (**52 chord types to choose from!**)
- Configurable game time and round time
- Fast entering of chords and notes with buttons
- Game information shows a running average time of how long it took you to answer a round correctly

### **How To Play:**

1. Start Chord Learner by tapping on the icon located in Start->Programs.
2. Select game the games menu at the bottom of the screen.
3. Select options from the options menu at the bottom of the screen to configure game setup, keys, and chord types.
4. Press the Start button to start the game.
5. For a given round, press the correct buttons to name either a chord or the chord notes. If you are stumped and need help with the round, hit the hint button. The hint will show up in blue in the game screen area. The hint can be configured in the Options menu under the Setup tab. When you are done entering your answer, hit the enter button. The correct answer will appear below your entry for 3 seconds in green or red to indicate whether you entered a correct or incorrect answer respectively. In addition, if your answer is correct, the average time field will be updated.

## Games:

**Chord To Note** – Given a chord name, figure out the chord's notes.

**Note To Chord** – Given a chord's notes, figure out the chord's name.

## Options:

### *Setup Tab*

**Round Time** – This allows you to select the amount of time (in seconds) for a round to last. Valid values for round time are from 1 to 180 seconds. When a round time expires, the answer is counted incorrect and the next round will automatically begin. This is a great feature for pushing yourself to think faster.

**Game Time** – This allows you to select the amount of time (in minutes) for a game to last. Valid values for game time are from 1 to 60 minutes. The progress bar at the bottom of the screen in the game will show how much time is left in each game. If unlimited is checked, the game time is unlimited.

**Select Only In Key Chord Types** – This is a cool feature to allow the game to only display chord types that fit exactly into a key or a chord type that may only have one or more notes that are in key. There are 52 chord types to choose from, but there are only 32 of those chord types that fit exactly into a major key. For musicians that want to work on chords that are close to a particular key, this feature is very useful. Chords that are displayed when the check box is clear will have at least 1 note that belongs in the key(s) you selected (i.e. You selected Key of C and the chord is Caug => C E G#, the notes C and E belong in the key, the G# does not). Enabling the check box will grey out the 20 chords that don't fit into a key. These chord types will not be allowed until the check box is cleared and you reselect them.

**Hint Always On** – This enables or disables the hint to be on at every round without having to push the hint button. This is a great feature for expediting the learning process and then turning it off to challenge yourself later.

**Hint Shows Chord Formula** – This enables or disables whether the hint shows the chord formula.

**Hint Shows Chord Type** - This enables or disables whether the hint shows the chord type.

**Hint Shows Chord's Major Scale** - This enables or disables whether the hint shows the chord's major scale.

**Hint Shows Key** - This enables or disables whether the hint shows the key that chord is in. This feature is only available if "Select Only In Key Chord Types Option" is unchecked.

**Select All Chords** – This quickly sets all available chord types without having to navigate to the other tabs.

**Clear All Chords** - This quickly clears all available chord types without having to navigate to the other tabs.

*Keys Tab*

Allows you to select any of the 12 major keys. The set all and clear all buttons will set all 12 keys or clear all 12 keys for quick and easy selection

*Triad, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> Tab*

Allows you to select any of the Triad, 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> chord types. The set all and clear all buttons will set all the available chords or clear all the available chord types in this tab only for quick and easy selection

*7<sup>th</sup> Tab*

Allows you to select any of the 7<sup>th</sup> chord types. The set all and clear all buttons will set all the available chords or clear all the available chord types in this tab only for quick and easy selection

*9<sup>th</sup>, 11<sup>th</sup>, 13<sup>th</sup> Tab*

Allows you to select any of the 9<sup>th</sup>, 11<sup>th</sup>, and 13<sup>th</sup> chord types. The set all and clear all buttons will set all the available chords or clear all the available chord types in this tab only for quick and easy selection

**Simple Method For Building Chord Names & Chord Notes:**

The intent of this section is to provide you with a simple and systematic method with little memorization that you can use and apply for learning how to build chords whether it be from a chord name to its notes (**Chord To Notes, Cmaj => C E G**) or notes to a chords name (**Notes To Chord, C E G => Cmaj**). Three examples are illustrated below for Cmaj, Dmin7, and Baug chords. Bolded parenthesis show each step as it applies to the chord given in the example. Please see **Appendix A** for details about how to build the major scales and for a list of chord types & formulas.

## Example 1: Cmaj Chord

### Chord To Notes:

Name: Cmaj

1. Determine chord formula for a maj chord type  
(**Formula = 1 3 5**)
2. Determine the major scale for the chord root  
1 2 3 4 5 6 7  
(**Root = C, Cmaj Scale = C D E F G A B**)
3. Determine the chord notes by applying the formula to the major scale notes  
(**1=C 3=E 5=G, so Cmaj contains the notes C E G**)

### Notes To Chord:

Notes: C E G

1. Determine chord root  
(**Root = C**)
2. Determine the major scale for the chord root  
(**Cmaj Scale = C D E F G A B**)
3. Determine the chord formula by comparing the major scale notes to the chord notes and determining the scale degrees that match the chord notes  
(**Notes = C E G**)  
1 2 3 4 5 6 7  
(**Cmaj Scale = C D E F G A B, degrees 1 3 5 contain the chord notes**)  
(**Formula = 1 3 5**)
4. Determine the chord type by knowing that a 1 3 5 formula makes a maj type chord  
(**maj = 1 3 5**)
5. Apply the root to the chord type  
(**Root=C, Type=maj, so our chord is Cmaj**)

## Example 2: Dmin7 Chord

### Chord To Notes:

Name: Dmin7

1. Determine chord formula for a min7 chord type  
(**Formula = 1 b3 5 b7**)
2. Determine the major scale for the chord root  
1 2 3 4 5 6 7  
(**Root = D, Dmaj Scale = D E F# G A B C#**)
3. Determine the chord notes by applying the formula to the major scale notes  
(**1=D b3=F 5=A b7=C, so Dmin7 contains the notes D F A C**)

### Notes To Chord:

Notes: D F A C

1. Determine chord root  
(**Root = D**)
2. Determine the major scale for the chord root  
(**Dmaj Scale = D E F# G A B C#**)
3. Determine the chord formula by comparing the major scale notes to the chord notes and determining the scale degrees that match the chord notes  
(**Notes = D F A C**)  
1 2 3 4 5 6 7  
(**Dmaj Scale = D E F# G A B C#, degrees 1 b3 5 b7 contain the chord notes**)  
(**Formula = 1 b3 5 b7**)
4. Determine the chord type by knowing that a 1 b3 5 b7 formula makes a min7 type chord  
(**min7 = 1 b3 5 b7**)
5. Apply the root to the chord type  
(**Root=D, Type=min7, so our chord is Dmin7**)

### Example 3: Baug Chord

#### Chord To Notes:

Name: Baug

1. Determine chord formula for an aug chord type  
(**Formula = 1 3 #5**)
2. Determine the major scale for the chord root  
**1 2 3 4 5 6 7**  
(**Root = B, Bmaj Scale = B C# D# E F# G# A#**)
3. Determine the chord notes by applying the formula to the major scale notes  
(**1=B 3=D# #5=F##, so Baug contains the notes B D# F##**)

#### Notes To Chord:

Notes: B D# F##

1. Determine chord root  
(**Root = B**)
2. Determine the major scale for the chord root  
(**Bmaj Scale = B C# D# E F# G# A#**)
3. Determine the chord formula by comparing the major scale notes to the chord notes and determining the scale degrees that match the chord notes  
(**Notes = B D# F##**)  
**1 2 3 4 5 6 7**  
(**Bmaj Scale = B C# D# E F# G# A#, degrees 1 3 #5 contain the chord notes**)  
(**Formula = 1 3 #5**)
6. Determine the chord type by knowing that a 1 3 #5 formula makes a aug type chord (This is memorized)  
(**aug = 1 3 #5**)
7. Apply the root to the chord type  
(**Root=B, Type=aug, so our chord is Baug**)

## Appendix A

### Musical Alphabet and Degrees:

The musical alphabet is simply permutations of A B C D E F G that repeats itself after its 7<sup>th</sup> note. Every major scale has 7 degrees. When the scale repeats itself, the degrees just keep incrementing. See the example below for a Cmaj scale that shows 14 degrees.

8 9 10 11 12 13 14  
1 2 3 4 5 6 7  
C D E F G A B

### How To Build Major Scales:

1. Write the musical alphabet starting from the root of the chord  
(Cmaj Chord, Root=C, C D E F G A B)  
(Amin Chord, Root=A, A B C D E F G)  
(Fdim Chord, Root=F, F G A B C D E)
2. Use information from the circle of fifths to determine sharps or flats that belong in the major scale  
(C D E F G A B, Cmaj has no sharps or flats)  
(A B C# D E F# G#, Amaj has 3 sharps=F#,C#,G#)  
(F G A Bb C D E, Fmaj has 1 flat=Bb)

### Information From The Circle Of Fifths:

Cmaj = No Sharps or Flats  
Gmaj = 1 Sharp = F#  
Dmaj = 2 Sharps = F#, C#  
Amaj = 3 Sharps = F#, C#, G#  
Emaj = 4 Sharps = F#, C#, G#, D#  
Bmaj = 5 Sharps = F#, C#, G#, D#, A#  
F#maj = 6 Sharps = F#, C#, G#, D#, A#, E#  
  
Dbmaj = 5 Flats = Bb, Eb, Ab, Db, Gb  
Abmaj = 4 Flats = Bb, Eb, Ab, Db  
Ebmaj = 3 Flats = Bb, Eb, Ab  
Bbmaj = 2 Flats = Bb, Eb  
Fmaj = 1 Flat = Bb

## Chord Types & Formulas:

Understanding chord formulas can be easier by noticing a few similarities

maj always has a 1 3 5  
min always has a b3  
dim always has a b3 and b5  
aug always has a #5  
7 always has a b7  
maj7 always has a 7  
min7 always has a b3 and b7

### *Triad:*

maj – 1 3 5  
min – 1 b3 5  
dim – 1 b3 b5  
aug - 1 3 #5  
sus2 – 1 2 5  
sus4 – 1 4 5

### *4<sup>th</sup>:*

add4 – 1 3 4 5  
min(add4) – 1 b3 4 5

### *5<sup>th</sup>*

5 – 1 5  
(b5) – 1 b5  
majb5 – 1 3 b5

### *6<sup>th</sup>:*

maj6 – 1 3 5 6  
min6 – 1 b3 5 6  
maj6/9 - 1 3 5 6 9  
min6/9 – 1 b3 5 6 9

### *7<sup>th</sup>:*

7 – 1 3 5 b7  
maj7 – 1 3 5 7  
min7 – 1 b3 5 b7  
dim7 – 1 b3 b5 bb7  
aug7 – 1 3 #5 b7  
7sus2 – 1 2 5 b7  
7sus4 – 1 4 5 b7  
min/maj7 – 1 b3 5 7  
maj7b5 – 1 3 b5 7  
min7b5 – 1 b3 b5 b7  
7#9 – 1 3 5 b7 #9

7#5#9 – 1 3 #5 b7 #9  
7#5b9 – 1 3 #5 b7 b9  
7b5#9 – 1 3 b5 b7 #9  
7b5b9 – 1 3 b5 b7 b9  
aug7b9 - 1 3 #5 b7 b9  
7b5 – 1 3 b5 b7  
7b9 – 1 3 5 b7 b9  
7#11 – 1 3 5 b7 #11  
maj7#11 – 1 3 5 7 #11

*9<sup>th</sup>*:

9 – 1 3 5 b7 9  
maj9 – 1 3 5 7 9  
min9 – 1 b3 5 b7 9  
min/maj9 – 1 b3 5 7 9  
sus9 – 1 4 5 b7 9  
maj(add9) – 1 3 5 9  
min(add9) – 1 b3 5 9  
9#5 – 1 3 #5 b7 9  
9b5 – 1 3 b5 b7 9

*11<sup>th</sup>*:

11 – 1 3 5 b7 9 11  
maj11 – 1 3 5 7 9 11  
min11 – 1 b3 5 b7 9 11  
min/maj11 – 1 b3 5 7 9 11

*13<sup>th</sup>*:

13 – 1 3 5 b7 9 11 13  
maj13 – 1 3 5 7 9 11 13  
min13 – 1 b3 5 b7 9 11 13  
min/maj13 – 1 b3 5 7 9 11 13