GUIDELINES FOR INSTRUCTORS/EVALUATORS

The aim of this proficiency is to give candidates an introduction to the various elements of music in order to understand and appreciate the many dimensions that are found within musical pieces. The students will be exposed to different kinds of music with the emphasis on critical listening skills and comparison between the differences in tones and rhythms used by composers. This is not meant to be used as a comprehensive study in music history but instead a brief introduction to the appreciation of music.

I. Elements of Music

1. The Melody

The melody is a musical line that guides our ear through a piece of music. It is often referred to as the plot, theme or soul of a song. Technically speaking, the melody is the succession of single tones perceived by the mind as a unity. This means that it has a beginning, a middle and an end. The melody can move in a stepwise fashion or leap to a tone further away. It can be fast, slow, loud or soft. In order for a melody to be interesting, it needs a rhythm. This concept will be discussed later. The melody, in a broad sense, has a 'long line' that builds tension and retains it until the end of the piece.

In modern rock songs, the melody is often the musical line that is sung. However, a melody does not always require words. In music from different kinds, the melody can be played by single or multiple instruments or perhaps passed from one instrument to another. The essential point of the melody is to communicate with the listener and keep their interest throughout the piece of music.

2. The Harmony

This element of music adds dimension and depth to the melody. The melody often implies the harmony that goes with it; each influences the other. A single unit of harmony can be described as a chord. A chord is a combination of 3 or more tones. There are two terms used to describe chords in relation to the melody. Dissonant chords introduce tension, suspense or conflict. Consonant chords resolve the dissonant chords which in turn give a feeling of relaxation and fulfillment.

Harmony can be either a single line that compliments the melody or it can be chords that back it up instead. For example, a modern rock song can often have two singers singing different musical lines at the same time. One is the melody that the listener has heard previously and is more likely to hum along with, while the harmonic line compliments the melody but is not necessarily easy to sing. It is also possible for the melody to be passed between the two singers such that the one

singing the harmony would then switch and sing the melody line while the one previously singing the melody would then sing the back-up or harmony.

3. The Rhythm

Rhythm is one of the essential elements of music. It refers to the controlled movement of the music in time. Rhythm is often called the 'heartbeat' of music. It gives life to the song. Meter is a term used to describe the organization of the rhythm. A beat is a regular pulsation; it is what we tap our feet to. Some beats may be stronger than others (the accent beat occurs at a regular interval of time). In a waltz, (1-2-3), the first beat tends to be accented more than the second and third beats. A measure, or bar, is what makes up a fixed number of beats. In a waltz, there are three beats per measure or bar. Typically the first beat in a measure receives the strongest accent. Therefore, meter can be defined as the fixed time patterns within which musical events take place. That is, the rhythm is the foundation upon which the melody is built. The melody will contain notes of different time lengths that flow over the regular meter. This is analogous to reading words in a sentence where we vary the emphasis so that the sentence becomes more interesting.

Meters can be divided into two categories: simple and compound. Simple meters include duple, triple and quadruple time. Duple meter (2/4 time) is the simplest of all meter patterns where one strong beat alternates with one weak beat. These two beats make up one bar length. Duple meter is most commonly found in marching songs because the strong beat corresponds to the 'LEFT' foot when marching. Thus LEFT, right, LEFT, right, LEFT, right is the duple time pattern. The 2/4 time is another way of explaining duple meter. The '2' refers to the number of beats per bar and the '4' refers to the value of the beats, or 'quarter' notes in this case.

Triple meter (3/4 time) has three beats per bar and the accent is found on the first of the three beats. It is associated with waltzes and minuets.

Quadruple meter (4/4 time) is the most common. It contains 4 beats per bar with the major accent on the first beat and a secondary accent of the third beat. If the size of the following numbers represent the amount of accent you would find on that particular beat of the bar, quadruple, time would look like this: 1 2 3 4.

Meters can become much more complex. These are grouped as compound meters. They can contain 5, 6, 7 or more beats to a bar. The value or length of time per beat can also vary. That is instead of quarter notes, the beats can be worth greater or lesser time values.

Syncopation is a term used to describe the deliberate upsetting of the normal accent. Shifting a strong beat to a weak beat, or what is termed an off beat, gives the illusion of the shifting of the beat although the underlying meter does not change. This is very popular in jazz music and dance rhythms.

4. The Tempo

Tempo refers to the musical pace or rate of speed. The meter defines the number of beats per bar but the tempo tells us at which speed the piece should be played. There is a close connection between the tempo and the mood or emotion. Tempo gives character to music. If you think of a favorite song, imagine it being played at a very fast or very slow pace. That would change the character of the piece even though the notes remain exactly the same. In most classical pieces, terms are generally given in Italian. Tempo markings can range from *grave* or solemn and very, very slow to *prestissimo* or lively and very, very fast. Italian words imply both speed and character whereas it takes a few words in the English language to describe the same Italian word. A piece of music can also change tempo during the piece or can speed up *(accelerando)* or slow down *(ritardando)* in sections. In any case, all tempo changes are indicated by the composer's markings in the score (music written on paper).

5. The Dynamics

The degree of loudness or softness at which music is played refers to the dynamic level of the piece. There is always a principal dynamic marking that says how loud or soft a line or musical phrase should be. For example, in *Silent Night*, we all know that it is sung very softly. The Italian word *piano (p)* would indicate that the musical phrase is to be played this way. On top of the baseline dynamics, the composer can add direction to the phrase by changing the dynamics in order to keep the listener's interest. If an entire piece of music was to be played quietly, the listener would become bored very easily. The phrase can be varied by adding a *crescendo* (<) which means growing louder or a *decrescendo* (>) which means growing softer. This gives the musical line more feeling or character. *Crescendos* and *decrescendos* allow a composer to add expression to music. It lets a musical phrase reach a climax and then subside. Composers can also add accents to certain notes to add an element of surprise or sudden stress. The use of dynamics can be compared to the use of light and shade in paintings and thus becomes a critical element in adding dimension to a musical piece.

The five elements described above are the basis upon which all musical compositions are written. Every song has all of the above elements combined in different patterns so that each is unique in its own way. Listen to recordings of musical pieces from different kinds to see the different effects that ere utilized in that period. From the early beginnings of music, only one or two of the above elements were used. As time passed and different movements arose, music became more complex and more elements were added to create a larger picture of what the composer was trying to portray. Even in modern rock songs, the basic elements are still to be found. The following are just two examples that will outline how a piece of music can be analyzed to understand and appreciate the various elements used by the composer to create an effect. If you feel confident in defining these terms and explaining these elements in general, use different examples of music to illustrate these elements.

	A. ***Bolero*** by **Maurice Ravel** - written in 1928	B. ***Nutcracker Suite*** by **Peter Tchaikovsky** - written in 1892
Notes for the instructor	The basic design of this orchestral piece is a repeating melody that increases in volume throughout the entire piece. The general volume of a piece can be increased by two methods. One way to achieve this is to have the musician play louder by either blowing into the instrument harder or hitting the percussion with greater force. The other method is to have the composer incorporate more instruments into the piece playing at a particular time. In this piece, the overall scheme is one giant *crescendo*. That is, the volume is increased in increments throughout the piece without any decrease in volume. Have the candidates listen to the complete piece and then have them comment on the basic elements as follows:	In particular, the last movement, ***Waltz of Flowers***. This piece is composed of two waltzes, the first repeats again after the second. Because this is the final movement of the ballet, you will notice an increase in excitement which leads up to the ending of a piece as well as the ballet. Thus, the composer uses several elements to create this climactic ending.
Melody	• moves around a narrow range • little leaps, lots of stepwise motion • a very haunting melody, rich in tone, has slightly jazz feel • there are very little swells in the melody, creates tension and then relieves it • any other terms that could possibly describe the tune	• first waltz described as flowing, alternates between horns and solo clarinet • strings then follow with a different melody that is contrasted with a measure by woodwinds • second waltz (middle section), soft melody by flutes and oboes followed by a rich full-throated loud melody by violas and cellos • notice that the first waltz is repeated.
Harmony	• very simple repeated pattern, same rhythm throughout piece • as piece progresses, the other layers of harmony are found • pick out the melody, the remaining layers are harmony • some harmony lines mimic the melody only found at a slightly higher or lower pitch than the melody itself; has same rhythm as melody • would be helpful to sing the different harmony lines on top of the melody for the candidates • may be helpful to 'hear' the musical lines within the context of the piece	• Many lines of harmony - oom(1) - pah(2) - pah(3) is one line, also outlines triple meter • when first waltz is repeated, flutes compliment the melody with ornamental passages • many comments can be made here

Rhythm	• meter is 3/4 time (pick out the 1-2-3 rhythm or underlying beat) • rhythm of the melody flows above the 3/4 time with varying lengths of time • shift between quarter notes that fall on the beat and eighth notes that fall in between (that is 1&2&3&, the eighth notes fall on the &s.)	• meter is 3/4 time or waltz time • many different rhythmic patterns found here although waltz feel throughout • again, many comments can be made here
Tempo	• walking tempo (*andante*) • imagine how this piece would sound if it was really slow or really fast (would completely change the character of the piece) • light, not heavy sounding • melody is lightly flowing above the meter, it doesn't drag	• marked *Tempo di Valse* • can imagine ballerinas dancing to this • increase or *accelerando* in the return to the first waltz
Dynamics	• the broad picture of this piece is an extended *crescendo* achieved by the methods mentioned earlier • within the melody (the repeated musical line) there are little swells to notes that create dissonance but they always resolve back to a relaxing chord	• pay particular attention to the return of the first waltz • Tchaikovsky creates excitement and reaches the climax at the end of the ballet using 3 elements: 1. increase in tempo, acceleration of pace 2. increase in volume, marking is triple forte (*fff*) or extremely loud 3. rise in pitch, music climbs steadily higher, in the upper register (high range for instruments) • this gives a rousing finality to the ballet • listener knows the end of the piece is near • sense of satisfaction and completion when the last chord is played
	In the analysis of the music, the basic elements can describe the feeling or emotion of a piece. The composer often tries to convey a picture or character by using different instruments and textures of sounds. Ravel was a French post-impressionistic composer from the early twentieth century. Because of the era in which he was born, he had many instruments to choose from when writing orchestral pieces. The hypnotic melody of ***Bolero*** is first introduced by a woodwind instrument. The various instruments will be discussed in the next section. Identify different instruments in this piece as they are played.	

II. Properties of Musical Sound

1. **Pitch** is defined as the location of a tone within a musical scale. It is determined by the rate of vibration which is ultimately dictated by the length of the vibrating body (string, brass tubing or column of air). If one note has a higher rate of vibration than another note, then the first note is said to have a higher 'pitch'. Pitch is the sound that we perceive when a musical instrument is played.

2. **Duration** is the length of time over which a vibration is maintained. It can be either short or long depending on the volume of air put through an instrument or the amount of vibration decay on the string. The musician controls this property of sound to an extent but the type of instrument can also put limitations on how long one note can be held.

3. **Volume** or dynamics is the degree of force of the vibrations. This aspect was discussed in the earlier section.

4. **Timbre** is the tone colour that is achieved by producing a sound on an instrument. This quality of sound is influenced by the instrument itself depending on its shape, size, material and manner in which the vibration is set up. A woodwind instrument for example sounds much different than a brass instrument because of the materials used to build them but timbre also varies within these larger classes of instruments. For instance, a flute sounds different than a clarinet because of the actual design and material of each.

III. Instruments of the Orchestra

A composer has a wide array of sounds to work with when writing a piece of music. Human voice, musical instruments or a variety of electronic synthesized sounds can be utilized to convey a certain mood or character. All instruments, including the voice have capacities and limitations in regards to range and dynamics.

Range refers to the lowest note possible played by that instrument up to the very highest note.

Each instrument is built to generate musical vibrations (or accommodate air being passed through) as well as amplify and modulate the sound waves. The length of the instrument's tubing dictates the range. In brass instruments, a tuba, which has a long tube when unfolded, has a much lower range of pitch in comparison to a trumpet which has a much shorter length of tubing. Stringed instruments such as violins and guitars can produce different pitches by altering the thickness of the string or by decreasing the string length. The thickness of a string decreases the number of vibrations and

therefore lowers the pitch. A shorter string length has less distance to vibrate than a longer one and thus produces a higher pitch.

A. The String Section

The string section of an orchestra consists of four different instruments:

- violin
- viola
- cello
- double bass

Each stringed instrument has four strings of varying thickness which can produce sounds by either plucking the string with a finger or drawing a bow across it. The pitch is altered by shortening the length of the string. This is accomplished by pressing fingers down on the string and allowing the remaining portion of the string to vibrate. The size of the instruments increase from violin to double bass and the range of the instruments also drops accordingly. The beauty of these instruments is the ability to play either a single note or a combination of notes at the same time. However, only one pitch can be played on a string at a time, so realistically, only four different pitches can be heard simultaneously. The consequence of such ability allows stringed instruments to play both melody and harmony.

B. The Woodwind Section

Instruments in this category produce sound by passing a column of air through a pipe that has holes along its side. The woodwind instruments look different from each other, unlike those found in the string section.

The flute produces vibrations by passing a column of air through a hole in the side of the pipe.

Clarinets and members of the saxophone family produce vibrations through a mouthpiece with a single reed. The mouthpiece is attached to one end of the tubing. In the case of the oboe and bassoon, a double reed is used.

All woodwind instruments have holes in the side of the pipe that lower the pitch as more holes are covered. The range of these instruments tends to be on the higher side but bigger woodwind instruments like the bass clarinet, bassoon and baritone sax can have a much lower range of pitch. Instruments in this class include the piccolo, flute, oboe, English horn, clarinet, bass clarinet, bassoon, contra bassoon and the saxophone family.

C. The Brass Section

All brass instruments have cup-shaped mouthpieces that fit into the end of a brass tube. The end of the brass instrument flares into a bell. Vibration is achieved by the 'buzzing' of the lips. Pitch change involves both valves or sides in the case of the

trombone, but also variation in pressure of lips against the mouthpiece. A brass

musician can often produce many pitches by buzzing only through the mouth piece without the aid of valves or slides. This group of instruments include the French horn, trumpet, trombone, euphonium and the tuba. These instruments are typically used in fanfare type music and can add brilliance in sound by the clear, distinct brass timbre.

D. The Percussion Section

This group of instruments produces sound by either striking or shaking it. Percussion can be made of wood, metal or stretched skin as in the case of the drum. This section is often used sparingly and plays a critical role in accentuating rhythm. It can be used to create climax and excitement to a piece of music.

Percussion instruments can be divided into two classes. The first is termed **tuned percussion**. The timpani (kettle drums) is a prime example. It has a copper shell that is in a 'cup' shape, with a calfskin stretched across the top. By changing the tension of the stretched skin, you can change the pitch. Percussionists generally use two padded sticks to produce a muffled sound although the pitch can be heard distinctly. Other instruments in the category include the chimes, marimba, xylophone and vibraphone. The second class includes **unpitched percussion**. These instruments do not produce definite pitch. The snare drum utilizes two calfskins stretched over a metal shell. The 'snares' (strings) give the drum a characteristic brilliant tone when hit with drumsticks and is often the drum heard playing complex rhythm patterns in marching bands. The tenor drum and bass drum are larger versions of this except that they lack the snares. Other instruments in this class include the tom-tom, tambourine, castanets (in Spanish music), triangle and cymbals.

E. Other Instruments

The harp is one of the oldest of all musical instruments. It is played by plucking strings of various lengths. Because it has many strings, it is possible to play one or more strings at a time. Pedals can raise the pitch by tightening the strings.

The piano has 88 strings that are hit individually by little hammers. These hammers are controlled by a keyboard mechanism. The duration of one key is relatively short and thus a damper pedal allows the tone to be sustained by allowing the string to vibrate freely. This is the pedal found on the right of three pedals. The left pedal shifts the hammers so the area of impact is reduced. This pedal is called the 'soft' pedal as it produces tones that are quieter in sound. The middle pedal, or the sustaining pedal allows the pianist to sustain only tones held down at the moment the pedal is depressed. Any keys played afterward are very short in duration allowing for a contrast in tone duration.

The organ is a wind instrument that allows air to enter the pipes by mechanical means. The many pipes are controlled by two or more keyboards. Different

materials can be used for the pipes thus producing different sounds and timbre. Electronic organs differ from the older pipe organs because they produce sound by electrical oscillators.

Listen to various examples of music found in the recommended music list. Students should be able to identify the different instruments playing and how these create the character of the piece.

These are just a few examples that highlight the different groups of instruments. Substitute other pieces of music if suitable.

The pieces of music in the recommended list are fairly well known and should either be available through the library or perhaps in a personal home collection of classical music.

IV. Analysis of a Musical Composition

The objective of this section is to learn how to listen critically to a piece of music and apply the elements described above. In a sense, you are trying to explain in words what the composer created with music. The following example is a detailed analysis of a familiar tune. This section is to be used as preparation for testing purposes although not as much detail is required for it. The students should have a good understanding of the basic elements and how to pick out the various parts within a musical setting.

***March from Raiders of the Lost Ark* by John Williams.**

Listen to a complete recording of the March from *Raiders of the Lost Ark.*

When describing the following sections below, it may be helpful to play short segments of the recording and then point out the important features, or point them out as they occur in the music. For rhythmic patterns, try clapping along. Melodic lines are often easily sung. Identify as many instruments as possible or to which orchestral section they belong.

1. The meter for this piece is 4/4 time (quadruple time). Pick out the basic underlying beats. They are not played but the meter is there. You can tap your feet to the meter even though it cannot be heard explicitly.

2. Determine in what sort of tempo this piece is written. It is a march, therefore, the tempo is about walking pace. The middle section slows down considerably. This is a tempo change found within the score of music. The march theme returns at the original tempo. Therefore, this piece would be considered a ternary or three-part form: the march theme is the A section and the slow middle part is the B section (A-

B-A). In other words, the composer presents a musical idea, contrasts it with another idea and then returns to the first.

3. Return to the beginning of the piece. Listen to the first few bars. Identify the instruments playing. The timpani is heard as the lowest pitch. Its rhythm is syncopated, that is, it shifts the accent from the beat to an offbeat. To illustrate this concept, count the beats out loud (1 2 3 4) and clap the rhythm that the timpani plays. The second note played by the timpani is off the beat. The trombones are also heard playing a quick motif or rhythmic pattern, that gives this opening a crisp and lively character. The string section plays a soft sustained long chord behind this rhythmic pattern. This distinguishes the key in which the piece is written. The dynamic level is *piano* or soft. It gives a feeling of being off in the distance but the mood or character of the piece is already set.

4. The melody is then introduced by the trumpets. It is full of both stepwise movement and leaps. The trumpet can produce a clear brilliant sound that is most often found in fanfares and marches like these. The harmony includes both the rhythmic pattern heard by the trombones in the introduction as well as the timpani.

5. The melody or more specifically, the theme, is repeated again by the trumpets but this time, another dimension has been added. The flutes are heard by playing the original rhythmic pattern that was first introduced by the trombones. Because the flutes have a much higher range than the trombones, it gives this section a feeling of expansion. That is, it has now opened the range of the entire piece from low instruments like the timpani and trombones up to the high range of the flutes.

6. As the piece progresses, the melody continues into a new idea played by the strings and brass. In this section, the percussion is not used but the underlying meter is still apparent. The tempo has not changed. There are more instruments playing in this section, giving a richer and fuller sound. There is a sweeping run by the flutes heard in the background. It provides another point of interest and another layer of texture. This melody is then repeated by the trumpets and the timpani is heard playing solid beats. The addition of the snare drum adds a march-like quality.

7. The original theme played by trumpets returns and the snare drum is heard tapping out another rhythmic patter. *Every time the theme is repeated, something new is added.* Listen carefully to the recording. The xylophone or bells can be heard playing the identical melody in a very high register. It adds 'height' to the piece - there is now a huge range of tones, from the very low timpani up to the very high bells. Because there is always something new, it maintains interest and excitement. A marked increase in dynamic from the opening to this repeat of the theme increases the climax. This section ends with a four note descending pattern heard three times; each time played in a lower register.

8. The theme then repeats in a new key. The pitch is raised half a tone. More instruments are playing. This increases the volume or dynamics. The ending is slightly different - the tempo slows considerably and the dynamic level drops.

9. This is considered the middle section. The tempo change is apparent. The character also changes form a march-like theme to a more romantic and longing melody played by the French horns. It is richer and fuller in tone which contrasts the short, accented march-like section. The percussion section is not used. The broken descending chord-like harmony is played by the string section. The woodwinds play a complimentary ascending chord pattern. There are a lot of small swellings in dynamics; small amount of tension caused by using dissonant chords resolved to consonant chords. The melody is mirrored by several other parts that would be considered harmony as well. These passages have the same rhythm as the melody and follow the same direction pattern but the pitch is different. Sing the melody. At the end of this section, just before the return of the march theme, a *ritardando,* or gradual slowing down, is noted. There is a large leap in the last 4 notes: the third note creates tension (it is lingered upon slightly), the fourth note resolves it.

10. The tempo increases back to the original speed. The melody is quiet or *piano.* The crisp rhythmic pattern is played by the flutes. A *crescendo* leads up to the repeat of the theme by trumpets. The long (4 beat) held notes all have *crescendos* and this is mimicked by the long runs of the fast notes played by the strings and woodwinds in these spaces. There is also an increase in volume. The pitch rises again so that the key is changed. The theme is heard in a very high register by the trumpets. There is more percussion playing. By listening carefully, alternate harmonic lines played by other brass instruments can be heard. This contrasts the melody and adds another layer of texture to the piece. In a few bars, the composer generates tension rising to a climax by writing in a lot of clashing chords that are not resolved until the last chord. This gives the entire piece a dramatic and exciting completion.

V. Test

Pick out a short piece of music, either a favorite modern rock song or perhaps a classical piece. Have the candidate listen to it and comment on the elements to the best of their ability by asking the following questions:

Questions	*Instructor/Evaluator's use only*
1. Describe the character of the piece.	Is it lively, solemn, romantic, etc.
2. Identify the instruments used by the composer.	The candidate should be able to pick out the major instruments or identify to which orchestral section they belong.
3. Describe the tempo.	Is it fast, slow, walking speed, march-like, etc.
4. Describe the dynamics.	Where does it specifically change and how does the composer increase dynamic level? Is it a broad dynamic change (starts soft and ends loud) or does it have small changes within the melodic line?
5. Is there a predominant rhythmic pattern?	Dance music often has a repeating rhythm. Can they clap to it?
6. What is the meter of the piece?	If the piece is 4/4 time, an answer of 2/4 is also acceptable.
7. What does the melody sound like?	Is it narrow in range or have large leaps? What qualities does it have (lively, rich sounding)?
8. Describe the harmony.	What instrument? Does it have a rhythmic pattern? Does it mimic the melody? Are there many different parts (ie. a bass guitar, a back-up singer, etc.)?
9. Is there an overall form to the piece? (Optional depending on the piece chosen)	Does it have two distinct parts (fast and slow tempos).

* An alternative is to have the candidates complete a take-home assignment on their chosen piece of music. The instructor must be familiar or have access to the piece of music chosen in order to assess the assignment.

VI. Recommended Music List

Elements of Music:

1. *Bolero* by Maurice Ravel
2. *Nutcracker Suite* by Peter L. Tchaikovsky (final movement - *Waltz of the Flowers*)

Instruments of the Orchestra

1. strings: Pachelbel's canon
   Eine kleine nachtmusik by Wolfgang A. Mozart
2. brass: any brass quintet or fanfare type music
   Wynton Marsalis recordings either jazz or classical
3. woodwinds: *Prélude à l'après-midi d'une faune* by Claude Debussy
   (this piece also has a harp in the introduction)
4. percussion: usually present in all types of music
   - either point it out as it is used or choose a jazz piece with a drum solo
5. piano: any solo piano pieces from Bach, Beethoven, Chopin, etc.
6. organ: *Organ Fugue in G minor* by Johann S. Bach

Analysis of a Musical Composition

1. *March from Raiders of the Lost Ark* by John Williams

Test

1. *The Fifth Symphony* by Ludwig van Beethovan
   (only the first section of the ternary form)
2. *1812 Overture* by Peter L. Tchaikovsky
3. *Carnaval* by Robert Schumann (a solo piano piece)
   (only opening movement)
4. *New World Symphony* by Antonin Dvorak