Professional Certificate in Music Psychology

Music Perception and Cognition

Music Perception and Cognition is a crucial area of study in the Professional Certificate in Music Psychology. This explanation will cover key terms and vocabulary related to this course, with the use of and tags to emphasize important terms or concepts.

Pitch: The perceived highness or lowness of a sound, determined by the frequency of vibration of the sound waves. For example, the A above middle C on a piano has a frequency of 440 Hz and is perceived as a higher pitch than the E below middle C, which has a frequency of 329.6 Hz.

Timbre: The quality of a sound that distinguishes it from other sounds of the same pitch and volume. Timbre is determined by the mixture of harmonics or overtones present in a sound wave. For example, the timbre of a flute is different from that of a piano, even if they are playing the same note.

Loudness: The perceived volume of a sound, determined by the amplitude of the sound waves. Loudness is measured in decibels (dB).

Rhythm: The pattern of duration and accentuation of sounds in music. Rhythm is often described in terms of tempo (the speed of the music), meter (the grouping of beats), and duration (the length of individual notes).

Melody: A sequence of pitches that are perceived as a single entity. Melodies can be composed of single notes or chords, and can be either diatonic (using the notes of a scale) or chromatic (using all twelve notes of the octave).

Harmony: The combination of two or more pitches sounding simultaneously. Harmonies can be consonant (pleasing to the ear) or dissonant (tense or unstable).

Consonance: The combination of two or more pitches that are perceived as pleasing or stable. Consonant intervals include the perfect octave, perfect fifth, and major third.

Dissonance: The combination of two or more pitches that are perceived as tense or unstable. Dissonant intervals include the minor second, major second, and tritone.

Tempo: The speed of the music, measured in beats per minute (BPM).

Meter: The grouping of beats in music, usually in patterns of two, three, or four.

Duration: The length of individual notes in music.

Consonant intervals: Intervals that are perceived as pleasing or stable, such as the perfect octave, perfect

fifth, and major third.

Dissonant intervals: Intervals that are perceived as tense or unstable, such as the minor second, major second, and tritone.

Diatonic: A melody or harmony that uses the notes of a scale.

Chromatic: A melody or harmony that uses all twelve notes of the octave.

Scales: A series of pitches arranged in ascending or descending order, with each pitch a specific distance from the next. Common scales include the major scale, minor scale, and pentatonic scale.

Chords: Three or more pitches sounding simultaneously.

Consonance: The combination of two or more pitches that are perceived as pleasing or stable.

Dissonance: The combination of two or more pitches that are perceived as tense or unstable.

Harmonic progression: A series of chords played in a specific order, often following functional harmony rules.

Functional harmony: A system of chord progressions that creates a sense of tension and resolution in music.

Tension: The feeling of instability or unease created by dissonant intervals or chords.

Resolution: The release of tension created by consonant intervals or chords.

Concert pitch: The standard pitch reference for orchestras and other large ensembles, usually A440.

Transposition: The process of changing the key of a piece of music, usually by raising or lowering all the pitches by a specific interval.

Key: The group of pitches that form the basis of a piece of music, usually centered around a tonic note.

Tonic: The first degree of a scale, and the note around which a piece of music is centered.

Modulation: The change of key within a piece of music.

Cadence: A chord progression that creates a sense of closure or finality, usually at the end of a phrase or section.

Perception: The process of interpreting and organizing sensory information, such as sound.

Cognition: The mental processes involved in perceiving, processing, and understanding information, including music.

Auditory scene analysis: The process of separating and organizing the different sounds in a complex auditory environment.

Stream segregation: The ability to separate and attend to two or more independent streams of sound.

Grouping: The process of organizing sounds into categories or units based on shared characteristics.

Prosody: The rhythm, stress, and intonation of speech, which can convey meaning and emotion.

Entrainment: The synchronization of body rhythms with external stimuli, such as music.

Emotion: A complex psychological state that involves physiological, cognitive, and behavioral components, and can be influenced by music.

Arousal: The level of physiological activation or excitement, which can be influenced by music.

Valence: The positive or negative quality of an emotional experience, which can be influenced by music.

Mood: A prolonged emotional state that can be influenced by music.

Memory: The ability to encode, store, and retrieve information, including music.

Long-term memory: The part of memory that stores information for extended periods of time, including musical knowledge.

Short-term memory: The part of memory that stores information for brief periods of time, such as the notes of a melody.

Working memory: The part of memory that temporarily stores and manipulates information, such as the chords of a progression.

Implicit memory: The unconscious influence of past experiences on current behavior, including musical skills.

Explicit memory: The conscious recollection of past experiences, including musical knowledge.

Procedural memory: The memory for skills and habits, such as playing an instrument.

Episodic memory: The memory for specific events or episodes, such as a concert or a listening experience.

Semantic memory: The memory for general knowledge, including musical concepts and terminology.

Schema: A mental framework or concept that organizes and interprets information, including music.

Mental representation: The internal model or image of a musical concept or structure.

Cognitive processes: The mental operations involved in perceiving, processing, and understanding music, including attention, memory, and emotion.

Motivation: The internal or external factors that influence behavior, including the desire to engage with music.

Attention: The process of focusing mental resources on a particular stimulus or task, such as listening to music.

Perceptual fluency: The ease or difficulty of perceiving a musical stimulus, which can influence liking and preference.

Expertise: The advanced knowledge and skills acquired through extended practice and experience, including musical expertise.

Musical expectancy: The anticipation or prediction of musical events based on past experiences or musical conventions.

Contour: The shape or direction of a melody, independent of pitch or rhythm.

Melodic expectation: The anticipation or prediction of melodic events based on past experiences or musical conventions.

Rhythmic expectation: The anticipation or prediction of rhythmic events