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A Two-Semester Course Sequence for Jazz Ear-Training with Application for Vocal Improvisation

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UNIVERSITY OF MIAMI

A doctoral essay proposal submitted in partial fulfillment of the requirements for the degree of Doctor of Musical Arts

A TWO-SEMESTER COURSE SEQUENCE FOR JAZZ EAR-TRAINING WITH APPLICATION FOR VOCAL IMPROVISATION

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A series of interviews were conducted with Professor Armen Donelian (New School University), Professor Frank Carlberg (New England Conservatory of Music), Professor Gary Keller (University of Miami), Professor Thom Mason (University of Southern California), and Dr. Stephen Prosser (The Berklee College of Music). A comparison and analysis of existing texts whose focus was jazz aural-skill development, in combination with the information gathered from the interviews, as well as the author’s personal teaching experience, served as the basis for the creation of a two-semester course sequence for jazz ear training with application for vocal improvisation. The major content areas found to be most critical for inclusion in the sequence include: rhythm, harmony, improvisation, transcription, dictation, chord progressions, jazz articulation, the blues, guide tones, modified numeric system for chord tone identification, and sight-reading (sight-singing). It is the author’s intention that this course sequence help to codify a system of jazz aural-skill development at the college-level that may be implemented in both existing jazz ear-training courses and programs where jazz ear-training courses do not currently exist.
ACKNOWLEDGEMENT

To my loving and supportive family without whom none of this would be possible.
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Chapter 1

INTRODUCTION

Traditional music-theory pedagogy and practice emphasizes the need for aural-based musicianship skills incorporating the implementation of ear-training classes for the college/university-level music student. This is a standard practice that has been widely embraced and developed since the creation of some of the first colleges of music in the U.S. In the latter half of the twentieth century colleges and universities began offering degree programs that focused primarily on jazz and popular music studies, and this is a trend that continues today.1 Although most of the fundamentals of music are the same when applied to both classical and jazz styles, there exist significant differences in certain areas of musicianship skills that require different technical and aural abilities from performers of each style of music.2 Furthermore, the voice and singing are the most integral part of our aural development and must be emphasized as a means to bring to fruition any of our musical ideas or creations.3

The National Association of Schools of Music mandates that any college-level music performance student acquire the following:

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An understanding of the common elements and organizational patterns of music and their interaction, the ability to employ this understanding in aural, verbal, and visual analyses and the ability to take aural dictation.

Students must acquire rudimentary capacity to create derivative or original music both extemporaneously and in written form; for example, the imitation of various musical styles, improvisation on pre-existing materials, the creation of original compositions, experimentations with various sound sources, and manipulating the common elements in non-traditional ways.4

According to music theorist Gary Karpinski, there is a specific set of listening skills that must be refined and developed in order to facilitate the greatest opportunity for musical expression. These include a) an ability to hear attentively, b) musical memory, c) musical understanding (in relationship to harmony, rhythm, and form) and d) notation.5

To be able to perform jazz music it is required that one be able to aurally identify subtle changes in intervallic, melodic, and harmonic structure. These requirements are derived from the historical tradition of how jazz music was conceived and passed on in its infancy. Before there were colleges and universities offering formal training in jazz music, students of the art form learned the musical language by means of an aural-imitative approach.6 It is also critical that students of jazz be able to perform aural dictation (transcription) with a high level of competency. There is a strong aural tradition that exists in jazz music that requires its students to be able to learn the music from recordings and to accurately recreate recorded performances on their respective instruments. Finally, it is imperative that students be able to develop and refine their

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musical memory skills, which will allow them to link thematic material used in improvising as well as interpreting a melody. Hal Crook provides the following rationale:

For jazz players, it is a fact of life that since we must ultimately be able to guide and control our improvising and comping exclusively by ear, we must constantly train and condition our ears to take responsibility for this task. Playing by ear is crucial to improvising because it is through hearing the music as we play it that we get inspiration, and through inspiration that we get the energy to control our playing and empower it with emotion and feeling.7

Jazz is a musical heritage that has distinct idiomatic tendencies and requires tremendous aural dexterity and technical ability.

Need for the Study

It could be argued that the traditional sequence of college-level ear-training courses, while attempting to enhance and develop those skill sets deemed important by NASM, falls short in many respects when attempting to prepare students of jazz. First and foremost, the aural-dictation segments of traditional ear training courses never include examples played with jazz rhythmic interpretation. Being able to accurately transcribe jazz rhythms is an entirely different skill set than transcribing rhythms played in a classical style.8 Secondly, traditional ear-training courses very seldom explore the advanced harmonic structures that play a key role in any jazz student’s technical development. These harmonic elements include, but are not limited to, major modes, melodic minor modes, harmonic minor modes, chord/scale relationships, melodic tendencies, upper-structure triads, chord extensions, etc.

There are a multitude of resources in written form, recorded media, as well as computer programs that discuss the topics of technical and theoretical knowledge as

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applied to the learning of jazz, but few that address aural skill development. Of the material that does exist, there are not many texts that organize the content of the book as if it were being used in a college classroom. Most of the books are relatively short workbooks that give a brief description of certain topics related to jazz ear training but include only a limited number of practice exercises and examples.

**Research Objectives**

The purpose of this study was to create a two-semester course sequence for jazz ear-training with application for vocal improvisation. This essay will focus on the creation of the objectives of a college-level jazz ear-training course. The categories of the course will reflect a logical sequence of those objectives so that integration into pre-existing courses will be easily facilitated. Current college-level jazz ear-training course curriculum and related texts have been analyzed, compared, and contrasted in order to facilitate the creation of a completely new two-semester course sequence. The new course material will be created specifically to incorporate the relevant objectives of jazz ear-training courses, organized in a logical sequence, for easy implementation into most college-level jazz ear training courses. The following research questions were designed to examine the contents of the existing jazz ear-training courses, conduct a thorough analysis of such courses and to identify literature as well as formulate the procedure for the creation of a new two-course curriculum:

1. What are the differences between traditional ear-training and jazz ear-training in a college-level course?

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2. Is there any standardization that exists regarding college-level jazz ear-training courses being taught at colleges/universities in the U.S.

3. What texts are available for implementation in a university-level jazz ear-training course, and which of those textbooks are currently being implemented in university-level jazz ear-training courses?

4. What are the specific content areas of the existing jazz ear-courses, and what material is lacking or is not supported adequately in the curriculum?

This study examines the current jazz ear-training courses being offered at noted colleges/universities, along with texts and other multi-media resources currently available for implementation in a college/university-level jazz ear-training curriculum. The resources are analyzed, compared, and contrasted. The study focuses particular attention on the content in regards to syllabication, harmony, melody, rhythm, intervallic recognition, and methods for learning and practicing jazz improvisation. The study also emphasizes those elements related to the vocal student.

The analysis reveals both common and specific areas of study deemed pertinent by the various course instructors/authors for inclusion in a college/university jazz ear-training curriculum. A detailed comparison of specific techniques and approaches to aural learning helps solidify and formulate the new information for the creation of the new curriculum. Because jazz music incorporates the use of non-traditional/non-diatonic harmony, it is extremely important that there be a curriculum that develops techniques and methods to enhance students’ aural skills with such non-traditional elements.
Chapter 2

SURVEY OF RELATED LITERATURE

Because the introduction of jazz as a formal program of study in both college and university settings has been a recent phenomenon (occurring within the last 50 years),

jazz departments and faculty alike have had to create their own curricula, course material, and accompanying texts. Relative to the traditional American music-education curriculum that has roots dating back to the founders of the colonies in New England, jazz music and its implementation into courses of study is still in its infancy.

By examining course curricula and materials currently used in established schools of jazz, this study aims to provide an accurate, concise, and thorough course sequence that will serve the jazz community as well as future students of the music.

Procedures for Analysis

Thorough analysis of content and structure is imperative to accurately collate the existing information included in the curricula and texts chosen for examination. The first step in analysis will be to provide a complete organizational table of contents that groups specific curricular content by category. This includes areas such as dictation (transcription), sight-reading, aural recognition of chord/scale relationships, performance of rhythms and melodies, solfegio, and improvisation. A curricular table of contents is included in the study to provide an overview of the material addressed in courses offered

10 (Baker 1979, v)

at different schools. The course content is then categorized and a brief description of each unit/chapter and its subsequent sub-units created. The next step is to compare and contrast the order of the material as presented in each of the three books (chapter chronology). The data from this analysis is very important in helping formulate the order of course sequence for the new curriculum. It is critical that a new curriculum the subject of which is jazz ear-training emphasize the role of transcription (dictation) and supply the reader with multiple transcription techniques as well as practice examples. The three texts to be used for review are carefully examined to evaluate the varying techniques they present for jazz transcription. The creation of a new curriculum to be used as model for a college/university music course must also supply the student with sufficient practice exercises and ways to reinforce the material. Therefore, the chosen curricula, as well as the three jazz ear-training texts, has been analyzed to determine how many practice exercises are included throughout each, and what is the number of exercises per chapter/unit (for textbooks only). The final step in the analysis is to compare and contrast the syllabi and curricular objectives provided by the instructors at the various schools of jazz. The chapters relative lengths (number of pages) and specificity (how many sub-groups are included in the chapter) are also considered.

**Jazz Ear-Training Instructional Text**

Aural-skill development is an integral part of any musical training and serves as the quintessential element to any high-level or advanced training in jazz music.\(^{12}\) Jerry Coker’s *Listening to Jazz*\(^{13}\) is a book that will help guide both the student and teacher of

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jazz, as it provides directed listening techniques. The author describes the most powerful contributing agent to the success of music as being *aural memory*, because it is our memory that allows us to replay previous sound experiences. There is an excellent methodology presented for listening to and evaluating jazz performances in a variety of styles and eras. The technique begins with a discussion of formal structures as they relate to jazz songs, which then extends into the harmonic component as it relates to chord progressions. The text offers thorough lists of historically significant jazz recordings at the end of each chapter to reinforce the presented material. Finally, this book discusses the role of the rhythm section and each of the individual instruments therein, a chronological overview of some of the most influential jazz musicians, and a treatment of the improvised solo (a key component to all jazz music).

The book *Scat! Vocal Improvisation Techniques*\(^{14}\), by Bob Stoloff, is a comprehensive guide that discusses some specific techniques and exercises that can be implemented to help develop vocal improvisational skills. These types of exercises are very useful for a jazz ear-training course in which the voice is used as the primary instrument, and they can be easily adapted to reinforce any of the course material that focuses on basic melodic awareness. The material presented in the first chapter focuses on rhythm and rhythmic interpretation in both swing and straight eighth-note feels and moves on to address melodic considerations, melodic solo construction, vocal bass lines, vocal drum articulations, and singing solo a capella. Although the focus of the Stoloff text is the techniques used to develop the art of vocal improvisation, there is a good deal of information that can be extracted and applied to generalized jazz aural-skill

development. One of the book’s strengths is the accompanying CD with recorded examples of many of the exercises included in the text.

Michele Weir’s book *Vocal Improvisation*\(^1\) is another text that addresses the topic of vocal improvisation. This text is appropriate for students and teachers who have a beginning to a moderately advanced level of vocal improvisation ability and covers a wide range of topics. There are certain chapters and parts of chapters that are extremely beneficial when used in a jazz ear-training course. In particular, the idea of having instrumentalists sing the melodies that they often improvise on their respective instruments serves to reinforce their melodic development and phrasing. As a primer to the actual exercises and practice techniques the first section of the book, called “Jazz Fundamentals,” discusses jazz theory, chord progressions, and some basic jazz keyboard techniques. Because the book is designed for the novice vocal improviser, there is not a lot of information that addresses intermediate or advanced improvisational techniques in regards to harmonic considerations or chord/scale relationships. Accompanying the book is a CD with very helpful recorded examples of exercises contained in the book, featuring three different jazz vocalists singing while accompanied by a rhythm section.

One of the most comprehensive texts available for a college/university-level jazz ear-training course is the book *The Art of Hearing: Aural Skills for Improvisors*\(^\text{2}\) by Thom David Mason. This book is well organized and moves sequentially from rhythmic elements to intervallic studies and beyond. The book comprises twelve units (chapters), the first six geared toward the novice jazz student and the remaining six addressing the

\(^1\) Michelle Weir, *Vocal Improvisation!* (Rottenburg: Advance Music, 2001).

needs of the advanced jazz student. Included in the first six chapters are units entitled “Performing Jazz Rhythmic Notation,” “Interval Studies,” “Chords and Chord Patterns,” “Chord/Scales,” “Learning to Hear Jazz Melodies,” and “Hearing Guide-Tone Lines.” The subsequent chapters have identical unit headings but reach greater levels of sophistication when addressing things like specialized jazz effects, various rhythmic styles other than swing, melodic minor mode study, extended harmony of dominant chords, modal music, and composite lines. Mason states that this book is the text he uses in a two-semester jazz ear-training course he teaches at the University of Southern California, and he includes a sample of his class syllabus as part of the text.

As the head of the ear-training curriculum in the Jazz and Contemporary Music Studies Program at The New School for Social Research where he has been a faculty member since 1986, Armen Donelian’s contributions to the field of jazz ear-training have been extensive. In his book *Training the Ear: For the Improvising Musician* he includes twelve lessons, each one containing both a melodic and rhythmic component, as well as a harmonic component in some of the latter lessons. The book is organized as follows: the lessons are grouped into four sections with three lessons per section. In each group, the first two lessons present musical elements pertaining to rhythm, melody, and/or harmony which progress in complexity. Each of the lessons includes corresponding vocal and rhythmic examples for the student to practice. The third lesson in each group contains practice examples that synthesize the musical concepts introduced in the preceding two lessons. It is worth noting that the third lesson of each group also includes combined

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vocal/rhythmic examples, as well as written examples that allow students to utilize a
different cognitive process.

It is rather difficult to find many textbooks whose focus is jazz ear-training, which
could be considered good accompanying material for a college-level jazz ear-training
course. There is, however, a brief primer written by Steve Masakowski that has been
included in various college jazz ear-training courses. The book is called *Jazz Ear
Training: Learning to Hear Your Way Through Music*.\(^{18}\) According to the author, the
most important qualities that all great jazz musicians must have are the “ability to hear
and recognize sound quickly, and the ability to react to what they are hearing.”\(^{19}\) This
particular text emphasizes the necessity for jazz students to recognize common modes
used in the jazz vocabulary, such as major, harmonic minor, ascending melodic minor
and harmonic major. The book is not organized in a traditional way, making use of
chapter headings, but rather includes an organizational system that categorizes the
eighteen sets of aural exercises into five unit divisions. Those divisions include how jazz
musicians hear, phrases and sequences, relational hearing, hearing phrases on II-V-I
progressions, and playing by ear. The generalized approach offered in this book is to
utilize a given mode or melodic sequence and apply it to the corresponding track on the
included CD. On each audio track of the CD, the chord progression changes and
introduces a new tonal center every sixteen bars to allow the ear to adapt and adjust to a
new aural stimulus, the author’s technique for practicing jazz ear training using “real
world” application.

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\(^{19}\) Ibid., 2.
The book *Guide for Jazz and Scat Vocalists*\(^\text{20}\), by Dennis DiBlasio, is a text that addresses some of the important skills necessary for any jazz vocalist but does not go into any great detail about any specific area. Topics of the book include preparing songs, music terminology, chord voicings for the piano, scat singing, jazz ear training, practice procedures for memorizing scales and chords, and essential song lists for jazz vocalists. Examples are demonstrated on the included CD that also contains recorded examples of a rhythm section playing songs along with which vocalists can practice interpreting melodies and improvising.

It is common to find comprehensive jazz improvisation textbooks that include the subject of ear training either as an individual chapter or integrated within the chapters but not given its own chapter designation. Phil Rizzo, author of *Creative Melodic Techniques used in Jazz Improvisation*\(^\text{21}\) recognizes the significance of aural skill development and has assigned a whole chapter in his book to ear training. This source dedicates thirty-eight pages to ear training and explores a variety of concepts and practice techniques. The chapter begins with the 12-bar blues form, which is the most basic song form in all of jazz music,\(^\text{22}\) and defines the “bread and butter” notes of the blues scale. There is a multitude of blues practice patterns included in this opening section. From the blues the author introduces different chord progressions that are commonly found in jazz literature and these are divided into four-chord sequences. Rizzo emphasizes the importance for any instrumentalist playing a melodic instrument to be able to play basic four-note chords


\(^{21}\) Phil Rizzo, *Creative Melodic Techniques used in Jazz Improvisation* (Cleveland: Phil Rizzo, 1973).

\(^{22}\) Ibid., 114
on the piano in order to fully hear the vertical harmonic progressions that are the basis of the jazz literature, and he devotes almost twenty pages of his ear-training chapter to charts illustrating the construction of the most common chords found in jazz compositions. Although there is only one chapter focused specifically on ear training, the book has interwoven ear-training examples and practice techniques throughout most of the chapters.

**Jazz Improvisation Research**

The vast majority of jazz instructional texts are written based on data gathered from the author’s personal and academic experiences. This method of gathering information into a textbook does not always allow for the greatest depth of treatment, because a formal study was not applied. For a more systematic approach on dedicated study, it is necessary to use a variety of dissertations as source material for this study. Of particular interest are those dissertations whose topics include jazz improvisation as it relates to aural skills, audiation, and vocal jazz improvisation as it relates to aural skills.

One of the very reasons for the present study is the lack of a standardized and codified curriculum for jazz ear-training, as well as the lack of a written text for college-level jazz students. This statement is reinforced in Patrice Madura’s dissertation _Relationships Among Vocal Jazz Improvisation Achievement, Jazz Theory Knowledge, Imitative Ability, Previous Musical Experience, General Creativity, and Gender_ where

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23 Ibid., 130

24 Patrice Dawn Madura, “Relationships Among Vocal Jazz Improvisation Achievement, Jazz Theory Knowledge, Imitative Ability, Previous Musical Experience, General Creativity, and Gender” (Ph.D. diss., Indiana University, 1992).
she states that vocal jazz improvisation teaching materials are few in number. It is imperative that this study examine material related to vocal improvisation, as the voice is the primary instrument used in all jazz ear-training courses. The Madura study investigates the factors that influence how vocal jazz improvisation is learned and to what extent each one of the factors identified in the title of the study plays a role in the learning process. What the study found was that listening to jazz frequently was significantly correlated with vocal improvisation achievement.

Closely related to the Madura study is a dissertation by Cherilee Wadsworth Walker titled *Pedagogical Practices in Vocal Jazz Improvisation*. The survey that was created as part of the study explored the attitudes of directors of vocal jazz ensembles, as well as of a jazz vocalists, regarding various strategies used to teach vocal jazz improvisation. The Walker study had two large procedural phases, a survey followed by extensive interviews. Master vocal-jazz pedagogues chosen based on nominations from survey participants and were asked to describe their individual teaching methods relating to vocal jazz improvisation. What the study found was that there is consistency about the present techniques used for teaching vocal jazz improvisation.

Because jazz musicians traditionally learn to improvise by listening and imitating other jazz musicians, it is important that a study such as *The Role of Transcription in Jazz Improvisation: Examining the Aural-Imitative Approach in Jazz Pedagogy* be reviewed as part of this study. As college and universities embraced jazz music as a formalized

\[25\text{ Ibid., 9}
\[26\text{(Wadsworth 2005).}
\[27\text{(Re 2004).}
study, music educators began seeking teaching methods in written form to use in conjunction with their courses. As a result of this demand, the music publishing industry produced more than 500 written jazz texts, the majority of which emphasized theoretical knowledge instead of aural-based learning.\textsuperscript{28} Transcription has been an integral facet of jazz education since the music began, but there is little research dedicated to its implementation or standardization of techniques used in either jazz theory or ear-training courses. The results of this study offer strong evidence that transcription needs to be a major component of jazz education and that the jazz education community would better serve its students if standardized transcription methods were created and adopted into practice.

\textbf{Development of the Two-Course Sequence}

Approaching the construction of a new college course sequence is like preparing to teach a two-semester course complete with supplemental written material, course objectives, organizational content chronology, as well as any and all practice exercises. Such a massive undertaking needs the full support and guidance of those who have accomplished such an endeavor.

Every course taught in a college or university has a specific objective and tries to provide students with a pre-designated set of information (competencies). Since no two students are the same, no two classes can be taught in exactly the same way. There must exist the ability to adapt and change each class according to the individual students’ needs. Based on the author’s personal teaching experience as well as the sequential order of material presented in the aforementioned college-level jazz ear-training texts, the following organizational course sequence will be implemented for the creation of the

\textsuperscript{28} Ibid., 2
two-course sequence, but will be subject to change depending on the needs of the individual class.

The first course (semester) will focus on the fundamental musical elements of rhythm and harmony. Rhythm will be the very first element presented in the course because it is the component that differs most between jazz and the traditional Western-European musical tradition. The way in which jazz (swing) rhythm is performed and interpreted varies almost as much as the music itself, but there is a commonality found in all rhythmic interpretations. During the semester students will be presented with various exercises and techniques to enhance rhythmic sight-reading skills as they pertain to swing interpretation, eighth-note divisions of the beat, offbeat emphasis, as well as eighth-note triplets. These competencies will be practiced and reinforced both aurally as well as by playing the examples. Also included in the first semester will be rhythmic examples in other styles, including samba, bossa nova, rock, funk, blues, and shuffle. Once the rudiments of jazz rhythm have been established, students will be given opportunities for rhythmic transcription (dictation) containing all of the rhythmic elements presented in the sight-reading portion of the course.

Melodic sight-reading is a component of the course that will reinforce many of the aural competencies necessary for a well-trained contemporary musician. The diatonic examples presented in the course will be drawn from the standard jazz repertoire and will include intervals no greater than a Perfect Fifth.

It is imperative that students refine their aural recognition abilities by having to sing all chromatic intervals as great as a major ninth using a new number system developed for this essay, be able to correctly identify triads and seventh chords when
played in root position and inversion, be able to identify designated unaltered chord
tones, as well as be able to accurately identify certain basic chord progressions and
modes. All of these competencies are crucial for the contemporary musician because they
help enhance the students’ ability to function in a contemporary musical environment.

Because the voice is the primary instrument being used in this course sequence,
students will be responsible for preparing two aural transcriptions in which they will
perform an improvised solo with the original recording. To help reinforce the ability to
notate recorded music, the students will also transcribe two improvised solos to be
performed on their respective instruments. One solo will be chosen from a composition
whose form and harmony is the 12-bar blues, and the other solo will be taken from a 32-
measure composition from the standard jazz repertoire.

The second course in the two-course sequence will serve to reinforce the
developed skill sets from the first course, while introducing new competencies for the
students to learn and refine. Rhythmic and melodic sight-reading, aural and written
transcription, solfegio, intervallic recognition, as well as aural recognition will continue
to be the primary focus of the course. Students will learn to recognize dominant chords
with extended harmony (9 & 13) as well as chords with altered chord extensions (+/- 9,
+11/b5, +5/b13). They will also be able to identify the modes of jazz minor as well as
common chord progressions found in the standard jazz repertoire in both major and
minor keys.

Some of the new material to be introduced in the second course will include, but
is not limited to, the creation and performance of bass lines, guide-tone singing, part-
singing using solfegio, modal vocal improvisation, multi-meter, non-diatonic examples
from the jazz standard repertoire, and modulation. These new competencies, combined with new material presented to enhance the existing ones, will serve as the foundation for the student whose objective is to be prepared to function as a contemporary jazz musician in the twenty-first century.
Chapter 3

METHODOLOGY

Purpose

The purpose of this study is to create a two-course sequence for jazz ear training. To facilitate the creation of the sequence a series of interviews took place with instructors who teach jazz ear-training courses at some of the most recognized colleges/universities who offer jazz degrees. These interviews served to codify the content and sequence of instructional objectives and competencies as related to jazz aural skill development. A comparison and analysis of existing texts whose focus is jazz aural-skill development further assisted the creation of the course sequence. The following research questions were designed to select the textbooks to be used in the analysis, examine the contents of the existing literature, as well as formulate the procedure for the creation of a new text:

1. What are the differences between traditional ear-training and jazz ear-training in a college-level course?

2. Is there any standardization that exists regarding college-level jazz ear-training courses being taught at colleges/universities in the U.S

3. What texts are available for implementation in a university-level jazz ear-training course, and which of those textbooks are currently being implemented in university-level jazz ear-training courses?

4. What are the specific content areas of the existing jazz ear training courses, and what material is lacking or is not supported adequately in the curriculum?
In order to create a new course sequence for jazz aural skill development it is essential that existing curricula, course structure, source material, and course content be examined and analyzed. The analysis assisted in the selection of information for inclusion in the new curriculum. To discover the content and textbook resources of existing college and university jazz ear-training courses, faculty members at schools that offer courses in jazz/contemporary ear-training were contacted and asked to provide a detailed list of all curricula, course objectives, syllabi, and written supplemental text(s) used in their courses. Based on the information gathered from preliminary investigations the following books have been chosen because of their use in existing jazz ear-training courses offered at some of the most prestigious college/university jazz programs in the country. The book *The Art of Hearing: Aural skills for improvisors,*\(^{29}\) by Thom Mason, is a text used in the jazz ear-training courses offered at the University of Southern California where Professor Mason is a faculty member. Another published text that was used in content analysis and organizational structure is Harry Pickens’ book *Ear Training for the Jazz Musician: 29 exercises in aural awareness.*\(^{30}\) The final book that was examined as part of this study was *Jazz ear training: learning to hear your way through music*\(^{31}\) by Steve Masakowski.

\(^{29}\) (Mason 1997).


\(^{31}\) (Masakowski 2004)
Jazz Improvisation Research

To accurately answer some of the research questions in this study it was necessary to consult various doctoral dissertations that investigated the role of jazz ear-training either directly or indirectly as it pertained to the course curriculum in a college/university-level music program. A dissertation entitled *Pedagogical Practices in Vocal Jazz Improvisation*\(^{32}\) by Cherilee Walker offered a wealth of information that reinforced the specific needs of jazz music in relation to audiation and how jazz musicians hear music. Patrice Madura’s doctoral dissertation *Relationships among vocal jazz improvisation achievement, jazz theory knowledge, imitative ability, previous musical experience, general creativity, and gender*\(^{33}\) was another rich source of information that investigated the role of aural skill development as it related to the jazz student and the specific aural-based needs placed upon students studying jazz. The last dissertation that provided a great deal of pertinent information for inclusion in this study was *The Role of transcription in jazz improvisation: examining the aural-imitative approach in jazz pedagogy*\(^{34}\) by Adrien Re.

\(^{32}\) (Walker 2005).

\(^{33}\) (Madura 1992).

\(^{34}\) (Re 2004).
Chapter 4

Discussion of Units

Based upon the results of research conducted regarding jazz ear training at the college level, a two-semester course sequence for jazz ear training was developed targeting the vocal musician. This course sequence consists of ten individual units that include brief musical examples and exercises for inclusion in the courses. It must be noted that the examples and exercises featured in the body of this work do not represent the depth and variety of examples that would be necessary for implementation of the course sequence in an actual teaching environment. Much supplemental material would be needed to facilitate thorough skill development. Because every class is unique, modifications to the course sequence may be necessary to accommodate the students’ strengths and weaknesses, and those modifications are left to the discretion of the teacher. It is the author’s suggestion, however, that the first course include units one through five, and the second course units six through ten.

The sources used as references for construction of the course sequence included various college-level texts focusing on jazz ear training, responses to interviews conducted with five jazz ear-training teachers at noted schools of jazz studies in the U.S as well as jazz ear-training course syllabi currently in use selected from prominent programs in jazz studies. After thorough investigation and analysis of the different source material and based on the author’s personal college teaching experience, it was
determined that the following elements were the most critical for inclusion in the course sequence:

- Rhythm
- Harmony
- Improvisation
- Transcription
- Dictation
- Chord Progression
- Jazz Articulation
- The Blues
- Guide Tones
- Modified Numeric System for Chord Tone Identification
- Sight-Reading (Rhythmic and Melodic)

As Duke Ellington once said, “It don’t mean a thing if it ain’t got that swing.” It could be argued that rhythm is the most fundamental element with regard to the performance of jazz music, although some people may say the same of “improvisation.” There is, however, sufficient justification for it being the very first element presented in Unit 1.35 There was consensus among the faculty interviewed and the written sources that rhythm be the first element discussed in a jazz ear-training course. Unit 1 discusses the swing feel and how it is derived from the eighth-note triplet. Following the discussion of the swing feel is the element of jazz articulation combined with the divisions of the beat and rhythmic interpretation of the different divisions. The unit concludes by presenting some of the rudimentary elements of harmony - the major scale and the chromatic intervals contained within the octave.

In the U.S there are two distinct systems used for sight-singing: the solfegio system and the number system. It is the author’s personal belief that solfegio, although it is widely accepted and used in primary music education, hinders the student’s ability to

associate the pitch being sung with its particular scale degree number and, ultimately, its harmonic function. At the same time, the traditional number system does not function well in all musical scenarios because some numbers contain one syllable while others contain two or more. This becomes particularly disruptive to rhythmic accuracy when one note must be sung with a number containing two syllables, thus changing the rhythm entirely. The traditional number system does not take into account that jazz harmony deals with both unaltered and altered chord extensions. For these reasons a modified numeric system was developed to achieve a concise way for students to make accurate chord/scale associations as well as identify chord extensions, both altered and unaltered.

Unit 2 introduces this new system as well as the basis for all extended harmony, the triad. The ability to *transcribe* (note a musical performance) is an imperative skill for the jazz musician. For this reason, both melodic and rhythmic dictation are introduced early in the course sequence in Unit 2. There are also exercises to reinforce intervallic recognition as well as one and two-hand rhythmic exercises.

To be able to introduce the *7th chord*, Unit 3 begins by illustrating the seven diatonic triads found in a major scale that comprise the building blocks for all 7th chords. Next, the three most fundamental 7th chords are presented, the major, minor and dominant 7th chord. It is at this point that the most widely used chord sequence in all of jazz composition, the ubiquitous ii-V-I chord sequence, is introduced. Because jazz has musical roots steeped in the musical form called the *blues*, the next element included in Unit 3 is the *12-bar blues* accompanied by the blues scale. The inversions of the triad are addressed along with the inclusion and explanation of the Augmented and Sus4 triad types found frequently in jazz harmony. It is also in Unit 3 that improvisation is first
incorporated. The particular improvisation exercise in this unit allows student improvisers the opportunity to use triads and the major scale as harmonic material for improvisation. The unit concludes with more two-hand rhythmic exercises, as well as exercises reinforcing the blues scale and its numeric syllables taken from the new modified system introduced in Unit 2.

Unit 4 begins by laying the foundation for the seven diatonic modes of major. This is accomplished by presenting the fundamental building blocks of any scale or mode made up of four-note groupings called tetrachords that derive their name from the Greek word “tetra” meaning “four.” The four tetrachords that combine to form the four modes Major, Minor, Phrygian and Lydian are presented in this unit. The unit continues by explaining the seven modes of major including each mode’s tetrachord composition. The improvisation element in Unit 4 focuses on the blues scale and the two most recognized modes of major: Ionian and Aeolian. To complete the series of 7th chords that was begun in Unit 3, the following 7th chords are identified: the half-diminished, fully-diminished, minor-major, augmented-major, and diminished-major, along with a review of the major, minor and dominant 7th chords. Building upon the dictation competency first introduced in Unit 2, Unit 4 includes abbreviated class examples of both melodic and rhythmic dictation. It is in this unit where some of the basic chord progressions first appear. The unit finishes with more rhythmic exercises. It should be noted that any rhythmic exercise included in any of the units could be practiced by clapping or by singing/speaking.

One of the most common chord progressions apart from the ii-V-I sequence is the turnaround. A turnaround is comprises a set of chords moving in a cyclical pattern, whose intervallic root relationships are ascending P4 intervals, whose final cadential
chord is I, and that is most often used as an introduction or ending to a song or in transitions. Unit 5 addresses the different permutations of the turnaround and includes examples with arpeggios that should be sung and played on the piano to reinforce aural retention and recognition. Unit 5 also includes the song form and chord progressions to a popular composition from the jazz standard repertoire titled “Satin Doll” whose theoretical elements were incorporated into an original composition titled “All Dolled Up.” This particular song is used as the first example in the course sequence because of the cyclical harmonic progression, which it contains only one temporary tonicization.

One of the most frequently employed elements used in teaching of jazz improvisation is use of the *guide tone*. A guide tone is a note that serves as a landmark for both harmonic and melodic resolution usually occurring on a change of harmony (chord change). The primary guide tones consist of scale degrees 1, 3, and 7. One of the exercises included in this unit requires the singing of the guide tones individually as well as forming three-note chords and singing the guide tones in class to hear the vertical harmonic structure of the chord.

The turnarounds introduced earlier in the unit are used as harmonic source material to allow the inclusion of some basic patterns for jazz improvisation. These patterns include arpeggios and the implementation of guide tones. It should be emphasized that the students are required to play on the piano any and all chords presented in the examples and exercises as a harmonic reference to any harmonic element being presented throughout the course sequence. The last elements in Unit 5 consist of rhythmic and melodic dictation and two-hand rhythm exercises.
Like mathematics, the most complex structures in music must first be reduced to their simplest parts in order to teach the concepts. In order to present the 9th chords in Unit 6, which are the first set of chords that are considered extensions of the fundamental harmonic series, the most fundamental elements, such as triads, needed to be explained in the earlier units. The first pitch class that is considered part of the extended harmony (a chord extension), in jazz is the ninth scale degree: the base equivalency being the second scale degree. A chord extension is a note added to a seventh chord that results in a chord having more than the four notes that comprise the 7th chord, giving the chord a more complex harmony and timbre. There are various 9th chords, but it was determined that the following are the most critical for inclusion in the sequence: the minor-major, major augmented, major, minor and dominant 9th chords.

The vast body of jazz standard repertoire includes compositions in both major and minor keys. It is for this reason that the minor ii-V-i chord sequence is included in Unit 6. In addition to the ii-V-i sequence there are four of the more common chord progressions included in this unit with standard piano voicings. The application of guide tones is used to address the second composition taken from the jazz standard repertoire included in the course sequence titled “You Are All Things,” which borrows the same song form and chord progression as the composition “All the Things You Are.” As was applied to the previous composition, “All Dolled Up” in Unit 5, the guide tones 1, 3, and 7 must be sung individually and in a group setting, resulting in the creation of each chord to facilitate aural retention and recognition of the harmonic structure and tendencies within the composition. This particular song was chosen for inclusion in the course sequence
because of its standard 32-bar AABA form and because it contains four tonicizations of temporary tonal centers.

*Aural Transcription* is the process of being able to vocalize (sing) a recorded musical excerpt, capturing all of the unique stylistic characteristics contained in the musical performance. As students are developing the ability to transcribe improvised solos and chord progressions, it is also important that they learn to internalize the jazz language while building a jazz vocabulary. That is why each student is responsible for learning and singing a designated improvised solo in Unit 6. Consistency and repetition allows students to develop the designated jazz ear training skill sets at a regular rate. For this reason, more advanced melodic and rhythmic dictation examples are found in this unit. The last item contained in Unit 6 is an abbreviated collection of two-hand rhythm exercises.

The ability for jazz musicians to rely upon their ears to guide them in a musical performance is critical. This skill comes from the ability to recognize chord qualities and harmonic progressions as they are played in real time. Unit 7 begins by illustrating eight common chord progressions in both major and minor keys that include modulations to non-diatonic key centers. The next element presented in the unit is the *bass line* and some basic techniques for bass line construction. The examples found in this unit identify the approach techniques commonly used when composing a bass line, as well as applying the bass-line construction to the 12-bar blues form and incorporating the use of the 3rd and 7th scale degrees as harmonic guide tones.

The *diminished* and *auxiliary diminished* scales are the crucial harmonic elements for application of diminished chords and altered dominant chords in the mastery of jazz
improvisation and composition. Unit 7 illustrates the tetrachord composition and the formulas for construction of the two different diminished chords and includes a hybrid scale implemented by jazz musicians of the bebop era called the *bebop scale*. The final element of Unit 7 is an improvisation exercise, which uses the harmonic material presented earlier in the chapter as source material for student improvisations.

Unit 8 continues presenting some common diatonic and non-diatonic chord progressions, which should be part of any jazz student’s harmonic palette. The next evolutionary stage of extensions to chords is the 13th and 6th chords. The three types of chords included in this category are the major and minor 6th chord, and dominant 13th chord.

Jazz compositions rely not only on the seven modes of major for melodic and harmonic material, but also on the seven modes of *jazz minor*. The jazz minor scale is identical both ascending and descending and is constructed from a combination of a minor and major tetrachords separated by a whole step. Unit 8 diagrams the tetrachord composition of the seven modes of jazz minor and transitions by introducing six types of *altered dominant* 7th chords. The examples and exercises included in this unit address the possible alterations to the dominant chord as well as the arpeggios of the included altered dominant chords. Unit 8 ends with a discussion of the relationship between the various modes of jazz minor and to which chords they are harmonically related.

Following the sequence begun in Unit 4, the last of the more than thirty chord progressions included in the course sequence are presented in Unit 9. As was illustrated in previous examples, this particular set of chord progressions includes examples that move in non-traditional sequences and to non-diatonic key centers not commonly found
in the standard jazz repertoire. To reinforce the application and internalization of the use of guide tones, the chord changes in the song “Have You Met Miss Jones” were incorporated into a new composition titled “Meetin’ Ms. Smith.” To retain consistency and afford students the opportunity to further enhance their ability for harmonic recognition and melodic tendential motion, the implementation of guide-tone singing is included with the aforementioned composition. Students are required to demonstrate mastery of singing the guide tones 1, 3, and 7 with a consistent rhythmic pulse and pitch accuracy. The composition “Have You Met Ms. Jones” was chosen for inclusion in the course sequence because of its 32-bar standard AABA form and because it contains five tonicizations of temporary tonal centers.

The ability for a jazz musician, especially a vocalist, to have an acute awareness of which chord tones are being played/sung at any given moment of a musical performance is more than critical, it is essential. It is for this reason that Unit 9 includes a section whose focus is on chord-tone recognition within the context of major, minor, and dominant 9th chords. The improvisation exercise included in this unit focuses upon the first two or three modes of jazz minor as well as the first two or three altered dominant 7th chords presented in Unit 8. The most prevalent rhythmic style in jazz music is the swing feel, but there are also other rhythmic styles that have found their way into the jazz vernacular. These include genres of music whose rhythmic conception is derived from the equal subdivision of the quarter note and not from the triplet subdivision as found in the swing rhythmic feel. Unit 9 includes examples of American rhythms common to these non-swing styles of music, which include, but are not limited to, funk, fusion, and rock.
Unit 9 also includes more one- and two-hand rhythmic examples of increased complexity as compared to previous units.

The 10th and final unit of the course sequence begins by defining and illustrating the 11th chord, the last remaining chord not previously discussed in the course sequence. The 11th chord is most commonly found in the jazz harmonic vocabulary as a minor 11th chord, but has also been used as a major 11th chord to create different harmonic colors. The final improvisation exercise contained in the course sequence addresses the modes of jazz minor as well as the altered dominant 7th chords that were not addressed in Unit 9.

As found in American musical genres such as fusion, rock, and funk which have found their way into the jazz idiom, there are a number of Latin musical styles that have become commonplace within the standard jazz repertoire. The most predominant Latin styles found in the jazz idiom include Bossa Nova, Samba, Latin Jazz, and Salsa. These four musical styles are included in Unit 10 along with idiomatic rhythmic examples common to each style.

Unit 10 includes the last aural transcription of the course sequence. A list of viable songs from which a transcription could be assigned is included in the unit. The last series of scales included in the course sequence are the pentatonic scales. A pentatonic scale is a five-note scale that does not contain a single tritone or half-step interval. The harmonic vocabulary for any jazz musician must include the major and minor pentatonic scales, as they are extremely versatile and commonly found in many recognized jazz improvisations from noted artists. The final element of the entire course sequence is a series of rhythmic and melodic dictations to be implemented in class.
Chapter 5

Discussion of Interviews

One of the most practical ways to understand the rationale and justification of course material for a specific subject area is to interview tenured faculty who teach that subject. The insight gained from such interviews can play a vital role in the adaptation and formation of new systems and methodologies for class instruction. For these reasons, five jazz ear-training faculty from recognized schools of jazz studies were asked to participate in an interview in order to gather different opinions and rationale regarding the subject of jazz ear training, aid in codifying and standardizing a college-level course sequence for jazz ear training with a vocal emphasis, and to promote further the existing research focused on college-level jazz ear training. The faculty invited to participate in the interview process were Professor Thomas Mason (University of Southern California), Professor Frank Carlberg (New England Conservatory of Music), Professor Gary Keller (University of Miami), Professor Armen Donelian (New School University), and Professor Stephen Prosser, Ph.D., J.D. (Berklee School of Music).

The interviews were conducted in the form of an email questionnaire, which included fourteen specific questions regarding college-level jazz-ear training instruction. The responses elicited from the interviews can be found in their entirety in Appendix D of this essay. As expected, the responses were varied. However, a majority of the respondents shared similar opinions regarding many of the questions. The interview questions were categorized into four distinct areas which included: A) Rationale and
Course Design, B) Organization of Elements, C) Student Performance, and D) Prerequisites and Evaluation.

**Rationale and Course Design**

The first category of questions was designed to validate the need to incorporate jazz ear training in a jazz curriculum, the amount of class time devoted to jazz ear training, which texts (if any) were used in class, and if there were different courses of jazz ear training designed for vocalists and instrumentalists. The responses to these questions varied but there was a general consensus among the respondents.

The ability to use one’s ear in an improvisatory musical setting is critical and must be a skill developed in a jazz ear-training course. A jazz musician must not only have a theoretical understanding of the music but must also have the aural awareness to know what the music sounds like. Any kind of music relies heavily on an ear-training element, and if the focus is jazz, then it is only logical that the course be focused on those skills relevant to the jazz musician.

In every response to the question regarding the number of weekly class meetings, all interviewees responded the same. It was unanimous that three class meetings of 50-60 minutes each would be the optimal amount of time dedicated to jazz ear training at the college level. Only at the Berklee College of Music did the first two semesters of jazz ear training meet three times per week, after which the class meetings were reduced to two times per week for the remaining two semesters. All other faculty reported that the jazz ear-training courses at their respective schools met twice a week for approximately 60 minutes per class.
With regard to accompanying texts used in the jazz ear-training courses, the faculty that did use texts either used their own published works or those works written by the jazz ear-training faculty at the institution at which they taught. A case in point is the New School, where Professor Donelian uses his books titled *Training the Ear Volume 1*\(^{36}\) & *Training the Ear Volume 2*\(^{37}\), and Professor Mason uses his books *The Art of Hearing*\(^{38}\) and *Jazz Ears*\(^{39}\).

The final question asked whether there were different sections of jazz ear training for instrumentalists and vocalists, to which all respondents answered “no.” No faculty member interviewed had a different section for vocalists and instrumentalists. The common belief among the faculty was that the only separation (if any) should come in the form of skill level and not instrument.

**Organization and Elements**

This category contained the largest number of questions and was designed to explore the major elements discussed in the jazz ear-training classes, whether there were any content areas that were emphasized more than others, the order/sequence in which the various elements were introduced, the rationale for each particular sequence, the most challenging element of jazz ear training for the students, and whether the use of a keyboard by students was included in the course.

The major elements that are addressed in each faculty’s jazz ear-training course are listed in the beginning of this chapter and were included in the body of the new

\(^{36}\) (Donelian 1992)


\(^{38}\) (Mason 1997)

\(^{39}\) Thom Mason, *Jazz Ears* (Milwaukee: Hal Leonard, 2007)
course-sequence design. Two of the five respondents felt that rhythm was a very significant element, and Professor Mason stated that he begins his course sequence with a rhythmic focus. Those faculty who include sight-singing in their respective courses stated that intervallic recognition and teaching a sight-singing system (solfegio or numbers) was the first harmonic element introduced and was preceded by the teaching of chord progression recognition, the blues, improvisation, and jazz articulations.

There was much less agreement as to which elements of jazz ear training were the most challenging for the student. While four of the five faculty responded that certain harmonic elements such as hearing chords, chord tones, chord progressions, melodic dictation, and the solfegio system using moveable DO were the most challenging, Dr. Prosser felt that the conception of rhythm was the most challenging element for his students. Since the jazz curriculum at each of the respective schools includes a jazz keyboard class, there is no keyboard element included in any of the other courses.

**Student Performance**

This category included questions meant to explore how the major elements of jazz ear training were demonstrated in actual class performance practice. The elements in this category included the use of sight-singing in class, which system (if any) was used for sight singing (solfegio or numbers), and the use of improvisation in class.

Four of the five faculty include listening as part of their course requirements. Such listening requirements included jazz masters’ solos, harmonic and rhythmic examples composed by the instructor, student compositions, jazz standards, jazz ear-training exercises, recordings of jazz artists reinforcing harmonic concepts introduced in class and musical examples available on the department web site.
Three of the five faculty responded that they included sight-singing as part of the courses they teach. Two of the three faculty that do include the sight-singing element use solfegio with the moveable-DO system, while one uses the number system. Improvisation is an element that is included in two of the five courses taught by the faculty interviewed. One significant point made by various respondents was that ear training must serve the jazz musician in an improvisatory setting, thus justifying its place in the jazz ear-training course. In some instances students are required to transcribe improvised solos and sing/play them in class, compose improvisations that they sing and play in class, as well as improvise using specific harmonic material chosen by the instructor.

**Prerequisites and Evaluation**

The last category of interview questions included questions focused on understanding the methods used to determine the individual student’s ability level before placement into a given course, what competencies the student must demonstrate upon completion of the course(s), and a question eliciting any additional comments that the faculty felt were pertinent to the discussion of jazz ear training at the college level.

At each school there is a diagnostic exam administered to the incoming students to determine placement into a given course. Some of these exams are given in the first meeting of the jazz ear-training classes, while others are given to the student body as a whole to determine general placement for all classes.

Responses to the question regarding competencies that the student must be able to demonstrate basically correlate to the elements included in each respective course. The responses to this question were some of the most valuable to the construction of the new course sequence. Those competencies deemed important by the faculty included the
student’s ability to hear common harmonic progressions, such as those found in compositions from the standard jazz repertoire, identify intervals, identify 7th, 9th, 11th, and 13th chords with extensions (altered and unaltered), notate rhythms and melodies, improvise “intelligently,” distinguish diatonic and non-diatonic modulations within a given composition from the standard jazz repertoire and hear the music they are going to play/sing in their heads before an actual performance.

The request for additional comments not addressed in any of the fourteen questions provided many provocative responses. It was apparent that a majority of the faculty felt strongly that a teacher of jazz ear training has a greater responsibility than those who teach other courses within the department. Professor Donelian stated that “the jazz ear-training instructor must be passionate about and care for the success of the student and demonstrate this level of commitment by consistently creating new methods of addressing the various course elements and inventing new examples/exercises to aid students in advancing to the next level of skill development.”

Professor Keller stated that he must consistently evaluate the students on a weekly basis to assure that they comprehend the material presented in class. He believes that the system at the Berklee College of Music works extremely well because they have a standardized system and methodology for instruction and have multiple faculty members who specialize in jazz ear training.

Professor Mason recently began having the students send him mp3 sound files that include recordings of the students demonstrating the harmonic exercises using selected compositions from the standard jazz repertoire as the medium. These recordings also include a composed vocal scat solo that defines the harmonic progression and
melodic tendencies of the composition. He requires the students to maintain a steady
pulse by snapping their fingers on beats two and four. The responses he has gotten from
the students have been extremely positive, because they appreciate the personal attention
he gives them when he critiques their individual performances.

All of the respondents agreed that to achieve the greatest results, emphasis must
be placed upon the selection of faculty chosen to teach this particular course, as
evidenced by the fact that the Berklee School of Music has an entire faculty dedicated to
jazz ear training and Professors Mason and Donelian have been teaching jazz ear training
for over twenty years and have developed their own systems which have been
incorporated into published jazz ear training texts. In fact, Professor Donelian is so
passionate about the subject of jazz ear training that he feels teaching jazz ear training is
not merely a job… but rather a calling.
BIBLIOGRAPHY


When interpreting jazz rhythm, the most important element is identifying the emphasized or “strong” beats within a measure. This is the basis for what we call groove. Groove is the musician’s reference to a characteristic rhythmic style such as a “funk groove” or an “R&B groove.”

In the Western classical musical tradition, the accent or emphasis usually falls on beats one and three. In the jazz tradition, the accent or emphasis usually falls on beats two and four. This particular pulsation provides the sense of forward motion in the music.

This can be observed most commonly with the jazz drummer playing the hi-hat cymbals on beats two and four, as well as the bass player emphasizing the notes played on beats two and four along with the hi-hat. It is also the reason that songs to be played with a swing eighth-note feel are counted off (how jazz songs are begun) with the snapping of the fingers on beats two and four to start the song.

Because jazz music has roots that began in an aural tradition, it is often difficult to notate jazz rhythms and achieve the precise intended rhythm. Students of jazz still must immerse themselves in the listening process in order to fully comprehend and synthesize the interpretation of the swing eighth-note feel. Eighth notes in jazz are not equal
subdivisions of the beat as they are in classical music. The common interpretation of classical eighth notes that have no specific markings is separated, while jazz eighth notes are commonly connected. The underlying subdivision for swing rhythm is the eighth-note triplet. The most common interpretation of the swing eighth note is an eighth-note triplet with the first note being a quarter note by an eighth note. The emphasis when there are two concurrent eighth notes is on the second note.

Example 1.0. Western Classical Tradition of Eighth-Note Interpretation.

Example 1.1. Jazz Eighth-Note Interpretation (triplet subdivisions).

LESSON 2

Jazz Articulation

Jazz articulation is an extremely important factor that contributes to the shape, contour, and groove of any given performance, and is part of the jazz vocabulary. It is not common to find jazz music written with jazz articulations, except that when a quarter
note falls on a subdivision of the beat it is almost always accented and given more weight. To facilitate the execution of the full-valued quarter note that falls on an offbeat, the use of tenuto and accent is needed, along with syllable *Dah*.

Example 1.2. Offbeat Full-Value Quarter Note.

![Example 1.2](image)

When there are two or more concurrent quarter notes to be played/sung on strong beats (beats 1, 2, 3, or 4) some may be full value, while others may need to be shortened (separated). For this both the staccato and tenuto articulations are used along with the syllable *Dut* (pronounced doot).

Example 1.3. Quarter Notes with Tenuto & Tenuto/Staccato Articulation.

![Example 1.3](image)

To separate full-value quarter notes that fall on offbeat subdivisions, both the staccato and the tenuto articulations are used and the associated syllable is *Dat* (pronounced daht).
Example 1.4. Offbeat Quarter Notes.

Subdivisions of the Quarter Note

The most common subdivision of the quarter note in jazz music is the eighth note. When written, the jazz eighth note looks exactly like its classical counterpart but there is a very distinct difference in how the two are interpreted. As mentioned earlier, the jazz eighth note is played as a triplet with a quarter note followed by an eighth note.

Example 1.5 illustrates how the jazz eighth note is written and how it is actually performed. Note that the eighth notes that fall on the offbeats are often accented in medium tempos (quarter note = 100 to 200 bpm) without the need for an accent mark.

Example 1.5. Swing Rhythmic Interpretation.

The closest approximation of jazz notation is to interpret a passage written 4/4 time as if it were written 12/8. The subtleties of swing rhythm cannot simply be reduced to this basic equivalency, but it is the starting point from which the finite details of swing interpretation can be derived.
Example 1.6. 12/8 Swing Rhythm Equivalency.

Example 1.6

Triples

The triplet is the most important subdivision of the beat in swing rhythmic interpretation and it is the building block from which swing eighth notes are interpreted. The most common triplets found in jazz music are the quarter-note triplet and the eighth-note triplet.

There are two ways to articulate triplets and these include the accented triplet and the slurred triplet. The accented triplet is most commonly associated with the quarter-note triplet and uses the syllables Da-Da-Du. Example 1.7 shows accented quarter-note triplets and their corresponding syllables.

Example 1.7. Quarter-Note Triplets.

The use of the slurred triplet allows the group of notes to sound as one melodic idea. It is much more difficult to define each pitch in a slurred triplet because they are not as clearly audible as the notes in an accented triplet. The slur gives the notes a more
legato and smooth quality, which is often used when playing in the cool jazz style or at medium and fast tempos.

Example 1.8 shows the associated syllables used in the slurred eighth-note triplet where the slurring occurs between the first two notes of the triplet. In this case the syllables *Du-L-Eh* are used. Note that in this case the last note of each triplet will almost always be slightly accented even though an accent mark is not written. Example 1.8. First Partial Slurred Eighth-Note Triplets.

The other type of slurring that occurs with eighth-note triplets is when the second and third notes are slurred together. In this instance the first note of the triplet will most likely be accented even though the accent mark is not present. In this case the syllables *Du-Du-Wa* are used.

Example 1.9. Second Partial Slurred Eighth-Note Triplets.

When the eighth-note triplet is followed by a rest the last note before the rest is always short, and is almost always accented slightly. Sometimes the last note will have a staccato articulation, but if a rest follows a triplet, a short accented note is implied. In this case the syllables *Du-Ba-Dat* are used.
Example 1.10. Eighth-Note Triplets Separated by Rests.

The interpretation and articulation of the triplets changes depending on the tempo of the music. At slower tempos ($\text{\textbf{q}} = 80$ to $120$ bpm) the eighth-note triplets are greatly exaggerated and often performed slightly behind the beat (behind the center of the rhythmic pulse). As the tempo of the music increases, the eighth-note triplet is played with a much more even attack and articulation, the downbeat of each measure is accented, the eighth notes become more even, and notes are placed on the beat (closer to the center of the rhythmic pulse.) Table 1 includes a list of examples in which the swing interpretation of the eighth-note changes according to the tempo of the performance.

Table 1  Song Examples for Eighth-Note Interpretations at Varying Tempi

<table>
<thead>
<tr>
<th>Tempo ($\text{\textbf{q}} = $)</th>
<th>Artist</th>
<th>Song</th>
<th>Album Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>Clark Terry</td>
<td>“Happy Go Lucky Local”</td>
<td><em>Memories of Duke</em></td>
</tr>
<tr>
<td>134</td>
<td>Stan Getz</td>
<td>“Too Close for Comfort”</td>
<td><em>The Steamer</em></td>
</tr>
<tr>
<td>166</td>
<td>Clifford Brown</td>
<td>“Joy Spring”</td>
<td><em>Alone Together</em></td>
</tr>
<tr>
<td>200</td>
<td>Bud Powell</td>
<td>“Star Eyes”</td>
<td><em>Best of on Verve</em></td>
</tr>
<tr>
<td>228</td>
<td>Kenny Dorham</td>
<td>“Philly Twist”</td>
<td><em>Best of Kenny Dorham</em></td>
</tr>
<tr>
<td>280</td>
<td>Herbie Hancock</td>
<td>“One Finger Snap”</td>
<td><em>Empyrean Isles</em></td>
</tr>
</tbody>
</table>
LESSON 3

Principles of Jazz Harmony

The ability to hear the multiple layers of music and sound simultaneously (harmony, rhythm, form, etc.), the ability to quickly assimilate and interact with the music being created, and the ability to combine theoretical and organic elements while improvising are the three fundamental elements for any developed jazz musician. At the very core of each of these abilities are the highly developed aural skills necessary to attain these elements.

Major Scale (Ionian Mode)

The fundamental building block from which all harmony and melody is derived is the major scale (Ionian mode). It is from this mode that the most common intervals are found, as well as the seven basic triads (building blocks for extended harmony such as dominant 7th chords) most commonly found in the standard jazz repertoire. The major scale is constructed by using the following sequence of intervals where W represents a whole step and H represents a half step: W-W-H-W-W-W-H. In example 1.11 a C major scale is shown with each note labeled with its corresponding scale degree. Note that the C one octave above the starting note is labeled 8 and not 1. The number 8 is used to signify that there will be extended harmony such as the ninth scale degree (enharmonically the same as the second scale degree).

Example 1.11. C Major Scale with Numbers.

![C Major Scale with Numbers](image-url)
Intervals

An interval is simply the distance between two notes. Intervals always contain two words in their name, the first indicates quality and the second indicates size. For example, in the name “major sixth,” the word “major” indicates the quality of the interval, while “sixth” identifies its size. There are two distinct categories of interval quality and they are the Perfect Group and the Major-Minor Group. The members of the Perfect Group are unisons, fourths, fifths, and octaves. The members of the Major-Minor Group are seconds, thirds, sixths, and sevenths.

Example 1.12. Interval Examples from the Perfect and Major/Minor Groups.

Examples from the Perfect Group

![Perfect Fifth](image)

Examples from the Major-Minor Group

![Major Sixth](image)
Table 2. Changing Interval Quality Without Changing Size

<table>
<thead>
<tr>
<th>Original Interval</th>
<th>Half-Step Change</th>
<th>Interval Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfect</td>
<td>+ Half Step</td>
<td>Augmented</td>
</tr>
<tr>
<td>Perfect</td>
<td>- Half Step</td>
<td>Diminished</td>
</tr>
<tr>
<td>Major</td>
<td>+ Half Step</td>
<td>Augmented</td>
</tr>
<tr>
<td>Major</td>
<td>- Half Step</td>
<td>Minor</td>
</tr>
<tr>
<td>Minor</td>
<td>+ Half Step</td>
<td>Major</td>
</tr>
<tr>
<td>Minor</td>
<td>- Half Step</td>
<td>Diminished</td>
</tr>
</tbody>
</table>
Unit 2

LESSON 1

The Number System

The challenge when using the number system for the purposes of jazz ear training is the ability to quickly sing passages when a single note falls on a scale degree number with more than one syllable, (the number seven for example) or when chromatic pitches are introduced (sharps and flats). For this reason it will be necessary to implement a new identification system which allows notes to be sung containing two or more syllables to be sung with just one syllable. In Table 3 below all of the twelve chromatic pitches are listed with their corresponding syllables, and Example 2 shows a major scale with the syllables below each note. Note that in Example 2 the number seven has the abbreviated syllable sev.

Table 3 The Number System

<table>
<thead>
<tr>
<th>Scale Degree</th>
<th>Syllable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/#1</td>
<td>One/Ween</td>
</tr>
<tr>
<td>2/b2</td>
<td>Two/Toon</td>
</tr>
<tr>
<td>9/#9/b9</td>
<td>Nine/Neen/Noon</td>
</tr>
<tr>
<td>3/b3</td>
<td>Three/Throon</td>
</tr>
<tr>
<td>4/#4/#11</td>
<td>Four/Feen/Ven/Veen</td>
</tr>
<tr>
<td>5/b5/#5</td>
<td>Five/Foon/Fave</td>
</tr>
<tr>
<td>6/b6/b13</td>
<td>Six/Soon/Thoon</td>
</tr>
<tr>
<td>7/b7</td>
<td>Sev/Voon</td>
</tr>
<tr>
<td>8</td>
<td>Eight</td>
</tr>
</tbody>
</table>
Example 2.0. C Major Scale with Numbers Including the 9th.

The following exercises are designed to help facilitate retention and rapid recall of the new syllabic identification system. In the following examples only the Ionian mode is used. There is a limit to a person’s vocal range as well as the comfortable areas of the vocal register, and for this reason the major scales in the example below alternate ascending and descending in varying keys in the attempts to maintain a comfortable range of notes for most people.

Example 2.1. Ascending and Descending Major Scales with Numbers.
When an exercise exceeds the vocal range or the comfortable range of singing (where pitch accuracy is jeopardized because of lack of vocal control) an octave shift must occur. In this case, when the last note in the vocal range has been sung the subsequent note must be lowered exactly one octave into a comfortable register. Example 2.2 shows how this shift looks when written.

Example 2.2. Ascending Octave Shift.

The very same phenomenon occurs when the exercise being sung exceeds the low limits of the vocal range. In this instance a similar procedure must occur, only this time the notes must be raised exactly one octave to maintain consistent vocal control and accuracy of pitch.

Example 2.3 Descending Octave Shift
The ability to recognize aurally and theoretically the most salient melodic and harmonic tendency tones, as well as the roots of the most common chord sequences is crucial to being able to create strong resolutions between chords and chord tones when improvising. The following Example 2.4 emphasizes the resolution of scale degree seven to scale degree one and also the resolution of scale degree five to scale degree one. The lines left blank under each note can be filled in with the corresponding syllable to reinforce the new syllabic system.

Example 2.4. Melodic Tendencies 5-1 and 7-1.
LESSON 2

Triad Sight-Singing Examples

Some of the most commonly utilized chords in the jazz vocabulary are triads. Therefore it is essential that intervallic relationships contained in the triads and triad inversions be studied to facilitate rapid aural retention and recall. In example 2.5 all of the five triad types and various inversions are introduced.

Example 2.5. Triad Sight-Singing Example.

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LESSON 3

Transcription

The ability to notate a musical performance with both pitch and rhythmic accuracy is called transcription. Transcription has been an integral part of the learning process for jazz musicians since the first jazz recordings were made. By transcribing improvised solos, students of jazz are able to analyze the melodic and harmonic
components of the solo and thus integrate those concepts into their own playing. This procedure greatly assists in developing the melodic, harmonic, and rhythmic jazz vocabulary for the aspiring jazz musician.

The following musical Examples 2.6, 2.7, and 2.8 are to be used for the purpose of transcription. These particular examples emphasize the diatonic intervals, triads, and inversions of triads from both Unit 1 and Unit 2.

Example 2.6. Unit 2 Intervallic Dictation Exercise.

Example 2.7 also reinforces interval recognition when the two notes that comprise the interval are played simultaneously to form a dyad (a two-note chord).
Example 2.7 Unit 2 Dyad Recognition Exercise

Example 2.8 incorporates the major and minor keys as well as many of the triads and their inversions for purposes of dictation.

Example 2.8. Unit 2 Melodic Dictation.
LESSON 4

Triplets

As mentioned in Unit 1, triplets are the rhythmic figures from which the swing feel is generated. The following rhythmic exercises emphasize both the eighth-note and quarter-note triplets. In example 2.9 the first few examples include the corresponding syllables to be used with the rhythms. The examples that do not include syllables should be carefully analyzed and have the appropriate syllables written below for accurate rhythmic performance.

Example 2.9. Unit 2 Spoken Rhythm Examples.
In Example 2.10 the rhythms should be performed with the higher notes being clapped/tapped with the right hand while the lower notes are clapped/tapped with the left hand. Once the exercise has been completed, reverse hands and repeat all of the rhythmic examples.

Example 2.10. Unit 2 Two-Hand Rhythm Examples.
LESSON 1

Diatonic Triads

The foundation for any form of complex harmonic structure in jazz music is the triad. Without the ability of the jazz musician to be able to quickly recall all of the triad types and their diatonically related qualities (those triads constructed from each scale degree of a major scale), it would be impossible to explore any of the more sophisticated harmony found in the jazz repertoire.

In order to understand all of the diatonic chord relationships, the triadic chord qualities must first be defined. Within a major scale there are three triad types that can be found. Those include major, minor, and diminished triads. In Example 3 a triad is constructed using each scale degree of the major scale.

Example 3.0. (7) Diatonic Triads.
LESSON 2

Seventh Chords

Once the qualities and functions of the diatonic triads are learned and internalized, the next set of chords that constitute the natural harmonic progression are the *seventh chords*. The seventh chord is constructed by placing a fourth note, the seventh of the chord in relationship to the root, as the top note of a triad. There are eight types of seventh chords found in jazz harmony but in this unit only the three most common seventh chords will be discussed. Those three chords are the *Minor 7*, the *Major 7*, and the *Dominant 7*.

Each seventh chord has a characteristic triad. The Major 7th chord contains a major triad and includes the note a major 7th above the root, as the top note as shown in Example 3.1.

Example 3.1. Major 7th Chord.

The Dominant 7th chord also contains a major triad, but the fourth note lies a minor seventh above the root as shown in Example 3.2. Notice that the dominant chord contains a tritone, which is found between the third and seventh.
Example 3.2. Dominant 7th Chord.

Finally the Minor 7th chord contains a minor triad, and the fourth note is a minor 7th above the root of the chord as illustrated in Example 3.3.

Example 3.3. Minor 7th Chord.

LESSON 3

Diatonic Chord Progressions

The strongest and most common harmonic and melodic chord resolution in all of music derived from the Western European musical tradition is the chord sequence of V to I. When applying this sequence using seventh chords the V chord has a dominant quality and the I chord has a major quality. This particular chord sequence is identifiable by a couple of different means.

First, the intervallic relationship of the V chord to the I chord is either an ascending P4 or a descending P5 as shown in example 3.4. Notice the notation used to indicate the dominant quality of the G (V) chord and the major quality of the C (I) chord. The other identifiable characteristic of this particular chord sequence is simply the
harmonic color of a dominant 7th chord resolving to a major 7th chord coupled with the unmistakable intervallic relationships between the roots of each chord.

Example 3.4. V-I Chord Progression.

In the Western Classical musical tradition it is very common for cadential points in diatonic music to conclude with the chord sequence IV-V-I. This sequence can be heard numerous times in works by many of the distinguished composers throughout history.

In the context of jazz harmony there is a very similar chord progression but with one slight alteration. The most common chord sequence found in all of the jazz standard repertoire is the sequence that includes the chords ii-V-I as shown in Example 3.5. In this particular sequence the ii chord is a substitution for the IV chord that is used in classical music. The harmonic justification for the substitution can be easily explained by an analysis of the ii chord and the IV chord as illustrated in Example 3.5. The ii minor 7th chord contains the triad found in the IV chord, thus making the ii chord a plausible substitution for the IV chord (Example 3.6).
Example 3.5. ii-V-I Chord Progression.

Example 3.6. Comparison of IV Triad and the ii Minor 7th Chord.

**LESSON 4**

**The Blues**

One of the oldest and most elemental forms in the jazz tradition is the *Blues*. The most basic form of the Blues is the 12-bar blues. Example 3.7 shows the 12-bar blues form with the corresponding harmony. It is important to note that in the most rudimentary form of the blues all of the chord qualities are dominant.
Example 3.7. 12-Bar Blues Progression.

Example 3.8 is a sample of how the 12-bar Blues might appear written in lead-sheet form or in a jazz fakebook. Note that the use of the Roman numeral analysis is a very important tool in being able to quickly transpose the Blues into different keys.
There exists a unique scale from which harmonic and melodic choices are derived when playing the Blues and that scale is called the *Blues Scale*. The Blues Scale is not related to any diatonic mode, as it contains a unique combination of intervals with only six non-repeating notes. The Blues Scale is comprised of the following scale degrees: \(1\)-\(b3\)-\(4\)-\(#4\)-\(5\)-\(b7\)-\(1\). Example 3.9 illustrates how the C Blues Scale is constructed with all the scale degrees identified.

Example 3.9. C Blues Scale Ascending.
LESSON 4

Rhythmic Dictation

To be able to understand theoretically what is happening in an improvised solo, harmonic substitutions to the songs of the jazz standard repertoire, embellishments to a melody, etc. it is necessary for a jazz musician to be able to notate what he hears being performed on a recording. The process of notating rhythms and melodies from a recording is called transcription. In order to develop this particular competency it is crucial we start with only one of the two elements that comprise transcription, rhythm.

In the rhythmic example below each four-bar example should be played four times. The rhythm should be performed on a piano while either a metronome is providing a steady pulse or the hand not performing the example is tapping a steady pulse. Depending on the ability level of the particular class it may be necessary for the instructor to verbalize the first beat of each measure to provide rhythmic landmarks for the class.
Example 3.10. Unit 3 Rhythmic Dictation Examples.

LESSON 5

Triads

In the following practice example students will be reinforcing three of the five triad-types while simultaneously strengthening their aural and theoretical knowledge of the triad qualities associated with each degree of the major scale.

Using the new syllables introduced in Unit 2 students will be required to sing all of the triads using an arpeggio in both ascending and descending order, at a steady tempo, without the use of an instrument for harmonic support. Due to the difference in vocal
registration and comfortable areas of singing, this exercise should be performed in a register for the student to achieve maximum vocal control and pitch accuracy. Students should practice singing the exercise in different keys to help develop vocal control and work to increase vocal range both high and low. The exercise should be practiced with the use of the piano to first reinforce each pitch of each triad while the student sings each pitch. Next, the student should only play the root of each triad and continue to sing the entire triad while sustaining the root on the piano. The final step is to be able to sing the entire sequence a cappella.

Example 3.11. Vocal Examples for (7) Diatonic Triads.

Triads are not always found in root position in the context of jazz compositions or when being utilized within the context of an improvised solo. Therefore it is of great importance that students develop the ability to sing triads in different inversions and in
random intervallic sequences. Example 3.12 introduces the two triad types not found in the major scale so students have the opportunity to reinforce all five triad types. Students should follow the same procedures as in exercise one regarding the use of piano. To incorporate the compositional process in the attempt to synthesize theoretical and aural development, students should construct their own unique set of practice exercises to complement their training.

Example 3.12. Vocal Examples for Major, Minor, and Augmented Triads and Inversions.

Augmented (Note the use of Fave to represent #5)

The diminished triad is the only triad type that contains a Tritone. Special consideration must be paid when the triad is inverted and the sequence altered to accurately sing the tritone when it occurs. When practicing the Sus4 triad it is crucial that
the student play the root of the triad through all of the examples to reinforce the tonality.

Once the Sus4 triad is inverted its harmonic characteristics change and it becomes difficult to retain the strong identifiable tonic as in the other triads.

Example 3.13. Vocal Examples for Diminished & Sus4 Triad Inversions.

**LESSON 6**

**Improvisation**

An integral element to all jazz music is the spontaneous compositional process that is called *improvisation*. The art of *improvisation* is a skill that must be practiced and refined, and it begins with what can be heard before what can be played. A theoretical understanding of jazz harmony, form, and chord sequence is critical but one must also rely heavily on the ear to help guide a melodic phrase.
This next exercise involves the entire class. Students must form a circle, connecting hands and this group will serve as the drone of the tonic (fundamental). All students within the circle are required to hum the designated tonic note while an individual is asked to enter the middle of the circle and be the improviser. As the rest of the class sings the tonic, the improviser must use the new syllable system and improvise using the notes contained in a given triad when announced by the instructor. This procedure continues until each individual student has had a chance to improvise.

**Unit 3 Triad Exercises**

Now that the basic building blocks of all of harmony (triads) have been introduced, the following rhythmic examples will help to synthesize the ability to vocalize the triads by combining a singing element with an independent rhythmic element. In Example 3.14 the top staff should be sung using the syllables provided while the rhythms in the bottom staff are tapped. A metronome should be used to reinforce a steady tempo. Depending on the individual’s skill level it may be necessary to first sing the melodic line while playing the notes on the piano to reinforce pitch accuracy.

Example 3.15 is a continuation of the exercises introduced in earlier units. The top staff should be tapped using the right hand while the left hand taps the bottom staff. Once each short example is completed with rhythmic accuracy, the hands assigned to each staff should be reversed so that the right hand taps the bottom staff while the left hand taps the top staff. With each example a metronome should be used to retain rhythmic consistency.
Example 3.15. Unit 3 Two-Hand Rhythm Examples.

Unit 3 Blues Scale Exercise

In the following exercise the note choices are limited to notes found only within the blues scale. The exercise should be performed with a metronome to provide a consistent pulse and emphasis should be placed on the pitch accuracy and the accuracy of the swing feel.
Example 3.16. Blues Scale Exercise.
Tetrachords

The fundamental building blocks of any scale or mode are four-note groupings called tetrachords that derive their name from the Greek word tetra meaning four. There are four unique tetrachords that exist in the seven modes of major and minor and they are major, minor, Phrygian, and Lydian (whole-tone) tetrachords. Scales and modes (totaling eight notes) are built by combining two of the aforementioned tetrachords, thus making it imperative that students acquire aural and theoretical mastery of these fundamental building blocks of music. Examples 4, 4.1, 4.2, and 4.3 illustrate the four unique tetrachords and the intervallic relationships that define each one.

Example 4.0. Major Tetrachord.

Example 4.1. Minor Tetrachord.
LESSON 2

Modes of Major

Within each major scale exist seven modes. These modes comprise seven non-repeating notes that are derived from each progressive (ascending) scale degree in the major scale. The first mode is called Ionian and it is also referred to as a major scale (as described in Unit 1). The Ionian mode is built from combining two major tetrachords. The following examples illustrate how each mode is constructed as related to the Key of C. Notice how all the modes share C’s key signature and all of the alterations mentioned in each example title refer to the mode in relationship to the Ionian mode.

Example 4.4. Mode 1-Ionian Mode (no altered notes).
Dorian mode is the second mode of major and it is constructed by combining two minor tetrachords.

Example 4.5. Mode 2-Dorian Mode (flat 3 and flat 7 scale degrees).

Phrygian mode is the third mode of major and it is constructed by combining two Phrygian tetrachords.

Example 4.6. Mode 3-Phrygian Mode (flat 2, flat 3, flat 6, and flat 7).

Lydian mode is the fourth mode of major and it is constructed by combining a Lydian tetrachord and a major tetrachord.

Example 4.7. Mode 4-Lydian Mode (#4).

Mixolydian mode is the fifth mode of major and it is constructed by combining major and minor tetrachord.
Example 4.8. Mode 5-Mixolydian Mode (b7).

G Mixolydian

Aeolian mode is the sixth mode of major and it is constructed by combining a minor and Phrygian tetrachord.

Example 4.9. Mode 6-Aeolian Mode (b3, b6, b7) (also known as Natural Minor).

A Aeolian

Locrian is the seventh and last mode of major and it is constructed by combining a Phrygian and a Lydian tetrachord.

Example 4.10. Mode 7-Locrian Mode (b2, b3, b5, b6, b7).

B Locrian

All of the seven modes of major can be organized into one of four different categories according to their quality. Those categories include major, minor, dominant, and diminished modes. Each quality refers to a harmonic quality found within a given chord. The ability to quickly associate modes with their respective qualities is imperative for any improvising musician. As the chord progressions of a song are changing, an improviser needs to have access to the information below in order to quickly access a
given mode from which to draw melodic and harmonic ideas. Table 4 below shows where each one of the seven modes of major belongs according to its unique quality. Note that the number in parenthesis next to each mode is the mode’s number in ascending order.

Table 4 Diatonic Mode Categorization

<table>
<thead>
<tr>
<th>Chord Quality</th>
<th>Major</th>
<th>Minor</th>
<th>Dominant</th>
<th>Diminished</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ionian (1)</td>
<td>Dorian (2)</td>
<td>Mixolydian (5)</td>
<td>Locrian (7)</td>
<td></td>
</tr>
<tr>
<td>Lydian (4)</td>
<td>Phrygian (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aeolian (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to facilitate the synthesis of the chord/scale relationship the student must be able to experience the sonic qualities of the different seventh chords and how each mode correlates with each chord. In Example 4.11 the seventh chord should be played on the piano while the corresponding mode of major is sung both ascending and descending. Note that the scale is always sung to the ninth scale degree.
Example 4.11. Ionian Mode with Piano Accompaniment.

C Ionian

Note that in example 4.12 the first note is the first scale degree of the mode. For example in D Dorian the first note (D) is the first scale degree of the D Dorian mode.


D Dorian

E Phrygian


F Lydian
Example 4.15. Mixolydian Mode with Piano Accompaniment.

G Mixolydian


A Aeolian
Example 4.17. Locrian Mode with Piano Accompaniment.

B Locrian

It is all too common to find instances in which students are asked to identify a given mode, triad, seventh chord, etc. when played as an example on the piano. While this is an important skill to acquire, it is of greater importance that the individual student be able to vocalize (sing) any and all examples. The inclusion of singing in each and every ear-training class is paramount to the maximum aural skill development of each student.

LESSON 4

Improvisation

Blues Scale, Ionian, and Aeolian Modes

To maximize the retention of the new numeric system and to encourage active student participation, only the two most familiar modes and the blues scale will be included in the improvisation exercise in this unit. It must be emphasized that each class is invariably different and the ability levels of each class can differ greatly. It is the
author’s opinion that the pacing of the class be moderate to fast so that those individuals with more advanced skills do not become bored and deterred from actively participating in class activities. In the author’s experience using students with more developed aural skills as tutors and group leaders has yielded extremely positive outcomes for both the individuals and the entire class.

In the following improvisation exercise the class will form a circle and interlock hands. The tonic assigned by the instructor will be hummed by the entire class and maintained while each student in the class will enter the center of the circle and become the improviser. The instructor will assign a mode or blues scale and the student improviser will be responsible to improvise a melody using the numeric system. Note that the student should not be required to demonstrate consistent time at this early stage of development. More attention should be paid to the student’s accuracy of pitch and correct use of the numeric system. This exercise continues until each student has had an opportunity to improvise using both modes and the blues scale.

**LESSON 5**

**Seventh Chords**

In Unit 3 the major, minor, and dominant 7th chords where introduced. There are a number of other 7th chords that exist in jazz harmony, and they are the half-diminished 7th, fully-diminished 7th, minor-major 7th, augmented major 7th, and the diminished-major 7th. All of the 7th chords are defined below in Example 4.18.
Example 4.18. (8) Types of 7th Chords.

In order to practice recognizing the various seventh chords that exist in jazz harmony it is crucial that students not only be able to recognize the seventh chords when played on the piano, but also sing them and internalize the intervals and triads that comprise each individual seventh chord. Example 4.19 illustrates how the student should approach practicing the seventh chords by playing and singing each one. The student should begin by singing only the triad to reinforce each seventh chord’s fundamental structure and after that step is completed, continue singing the complete seventh chord. The top staff of each example is to be played on the piano and sustained while the student sings the notes of the lower staff. It is also recommended that the student take time to internalize the different intervals that exist between scale degrees five and seven in each unique seventh chord. Begin the exercise by singing each pitch of the chord slowly and freely, repeating each chord three to five times. Once pitch accuracy and pitch confidence
has been achieved, repeat the exercise with a metronome at a slow tempo ($\frac{\text{d}}{\text{m}} = 60$). Use the piano the first few repetitions with the metronome and then sing the exercise without any harmonic accompaniment. It is recommended that students record these practice exercises to be able to have an instantaneous means of self-evaluation.

Example 4.19. (8) Types of 7th Chords with Arpeggios and Piano Accompaniment.

Major Seventh Chord

Minor 7th Chord

Dominant 7th Chord
Half-Diminished Seventh Chord (-7b5)

Diminished-Major 7th Chord

Minor-Major 7th Chord

Fully-Diminished 7th Chord
LESSON 6

Melodic and Rhythmic Dictation

In both the melodic and rhythmic examples (4.20 and 4.21) below, each four-bar example should be played four times. The rhythm and/or melody should be performed on a piano while either a metronome is providing a steady pulse or the hand not performing the example is tapping a steady pulse. Depending on the ability level of the particular class it may be necessary for the instructor to verbalize the first beat of each measure to provide rhythmic landmarks for the class.

Example 4.20. Unit 4 Rhythmic Dictation Examples.
Example 4.21. Unit 4 Melodic Dictation Examples.
Lesson 7

Chord Progressions

Along with the ability to recognize and identify triads, seventh chords, and all of the twelve chromatic intervals, it is imperative that the student of jazz also be able to recognize harmonic progressions or chord changes as they are referred to in jazz terminology. As mentioned earlier, the most fundamental progression of all music based on the Western European Harmonic system is V to I. In this example the following chords will be used to acquaint the student with simple harmonic progressions/harmonic tendencies commonly found in the jazz standard repertoire. Those chords include I, ii, iii, IV, V, and vi. In Example 4.22 each sequence of chords should be played on the piano multiple times to allow students to make the harmonic associations between intervallic root movement and chord quality. Students should first listen for the root of each chord and identify the intervallic relationships between each and then attempt to identify the quality of the chord.

Example 4.22. (4) Diatonic Chord Progressions.
Example 4.23 is a continuation of the exercises introduced in earlier units. The top staff should be tapped using the right hand while the left hand taps the bottom staff. Once each short example is completed with rhythmic accuracy, the hands assigned to each staff should be reversed so that the right hand taps the bottom staff while the left hand taps the top staff. With each example a metronome should be used to retain rhythmic consistency.
Example 4.23. Unit 4 Two-Hand Rhythmic Exercises.
Unit 5

LESSON 1

Chord Progressions

In the standard jazz repertoire a very common chord progression is a minor chord moving to a dominant chord by an interval of an ascending P4 or a descending P5. Most often a major chord that is either an ascending P4 higher or a descending P5 lower than the dominant chord follows and completes the progression (this forms a ii-V-I sequence). There is a commonly used chord progression in the jazz harmonic system called a "Turnaround." A turnaround is comprised of a set of chords moving in a cyclical pattern, whose intervallic root relationships are ascending P4, whose final cadential chord is I, and is most often used as an introduction or ending to a song. Most commonly the chords used in a standard turnaround are I-vi-ii-V-I. It is commonplace to use a iii chord as a substitution for the I chord making the turnaround sequence iii-vi-ii-V-I. There are also instances in the jazz repertoire where modally borrowed chords are used as substitutions. Of particular interest are the II dominant 7th chord as a substitute for the ii-7th chord, and the VI dominant 7th chord as a substitute for the vi-7th chord. In Example 5.0 the most common forms of a turnaround are illustrated in the Key of C.
Example 5.0. Common Turnarounds.

To be able to recognize chord progressions and specifically, common harmonic tendencies, the chords that comprise the turnaround need to be internalized. In order to
accomplish this, students must be able to identify these particular chord progressions when played on the piano, as well as be able to sing them in sequence a cappella. Example 5.1 shows how the different turnarounds should be practiced to achieve aural memorization. While playing and sustaining the chords in the top staff on the piano, the bottom staff should be sung using the syllables provided. At first the exercise should be sung slowly and freely concentrating on pitch accuracy. Once the intervallic root relationships and pitch accuracy have been established the exercise should be repeated using a metronome to provide a consistent pulse. As the level of accuracy increases only the root of each chord should be played on the piano while the top staff is sung. The final step in the exercise is to sing the entire example a cappella maintaining consistent pitch accuracy and pulse.

Example 5.1. Common Turnarounds with Arpeggios.
The next step to be able to identify the harmony (chord changes) of a song is to use examples taken from the jazz standard repertoire. In Example 5.2 the chord changes for the Duke Ellington composition “Satin Doll” have been incorporated into an original composition titled “All Dolled Up.” When first learning a song from the jazz repertoire it is of great importance that the student be cognisant of the critical elements that need to be analyzed and evaluated. These would include, but are not limited to, the form of the song (AABA, ABA, ABC, etc.), the fundamental and temporary tonal centers (the key of the piece and any temporary tonicizations that exist in the music), the harmonic structure of the piece (the chord changes), the lyrics, and any unique characteristics to the composition (i.e. multi-meter, modality, complex harmonic structure, odd form, etc.).

In both “Satin Doll” and “All Dolled Up” the form of the composition is a very typical 32-bar, AABA song form common in the jazz standard repertoire. The fundamental key center is C but there is a temporary tonicization of the key of F (IV) during the B section of the composition. During the final A section of each piece the fundamental key center (C) is tonicized and the song ends in the same key in which it began.
Example 5.2. “All Dolled Up.”

Jazz ear training should involve singing whenever possible. According to Professor Thomas Mason of the University of Southern California, “Singing goes on a lot
as we tend to read through something at the beginning of every class.”

Dr. Stephen H. Prosser of the Berklee College of Music states that “Students are required to sight-sing music throughout the core (jazz ear-training) courses.” The most effective class is when the most students possible are actively participating at the same time. The next example can be used to facilitate simultaneous total class involvement.

Three fundamental notes can define any chord and they are the root, the third, and the seventh scale degrees. The objective of the following example is to reinforce aural learning, song form, vocal pitch accuracy, and harmonic progressions. The first step in the process of deconstructing the harmony is to be able to sing all of the roots of each chord in the entire composition a cappella, with a consistent pulse using a metronome. In order to accomplish this competency a piano should be used to reinforce each different pitch, and, to begin, only small sections (two to four measures) should be practiced. Once the smaller divisions of the form are performed with consistent pitch accuracy and pulse, smaller sections should be combined to form larger sections (the entire A section for example). This process should be implemented until the entire piece can be sung a cappella with pitch accuracy and a consistent pulse. The task of being able to sing the entire piece is each student’s individual responsibility to learn and master, but the entire class can be actively engaged simultaneously while practicing this aural skill by singing the roots, and eventually the third and seventh scale degrees respectively.

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40 Thomas David Mason, interview by author, email correspondence, Los Angeles, Ca., 16 February 2008.

41 Stephen H. Prosser, interview by author, email correspondence, Boston, Ma., 2 March 2008.
Example 5.3. “All Dolled Up” with Guide Tones (Roots).

Example 5.4 illustrates the chords that comprise the song “All Dolled Up” constructed using three notes, the root, the third and the seventh scale degrees. Once
mastery of singing the roots is attained, the same learning process should be utilized to
gain mastery of singing the third and seventh scale degrees respectively. Once all of the
students in a particular class have acquired the ability to sing each of the three
fundamental chord tones a cappella, the class can be divided into two groups. One group
will be responsible to sing the roots of the chords while the other group will be
responsible to sing the thirds of the chords. The final step is to divide the class into three
groups and each group sing one of the fundamental notes, thus constructing the entire
chord. This activity will promote total simultaneous active class participation, and it
encourages students with less developed vocal ability to participate, because there isn’t as
much exposure of the individual student to the entire class.

Example 5.4. (3) Fundamental Guide Tone Chord Construction.

In Example 5.5 a four-measure sequence illustrates how the first four measures of
the piece should be sung using the corresponding syllables as they relate to the tonic (Key
of C).
Example 5.5. Four-Measure Sequence of Guide Tone Chord Construction.

LESSON 2

Patterns for Jazz Improvisation

As can be found in any form of music around the world, patterns or sequences are a key element of music. Jazz music and jazz improvisers employ the use of patterns or sequential melodic and rhythmic material. These patterns are sometimes referred to as *licks*. A lick is a series of notes that can be played during a certain chord progression (most commonly a ii-V-I) that most often outline the chord structure while incorporating extended harmony and rhythmic vitality.

In Example 5.6 a few of the common patterns are provided using the turnaround as the harmonic progression, to demonstrate some of the possibilities for melodic, harmonic and rhythmic source material that can be used when improvising. Notice that in this particular example the chords are defined by arpeggiation rather than a linear approach.
Example 5.6. Patterns for Improvisation.
Three Five Sev Two Eight Six Five Three Two Four Six Eight Sev Five Four Two
E-7 A-7 D-7 G-7

One
C Maj7

Two Sev Five Three One Three Five Six Eight Six Four Two Sev Two Four Five

E-7 A-7 D-7 G-7

One
C Maj7

One Three Five Sev Six Five Three Ween Two Four Six Eight Sev Five Four Two

C Maj7 A7 D-7 G-7

One
C Maj7
LESSON 3

Rhythmic and Melodic Dictation

The following examples are to be used in the classroom as practice exercises for melodic and rhythmic dictation. Each example should be performed four times to allow students the opportunity to notate the example. Either a metronome or the tapping of a steady pulse must be provided during each performance of each example.

Example 5.7. Unit 5 Rhythmic Dictation Examples.
Example 5.8. Unit 5 Melodic Dictation Examples.

Example 5.9. Unit 5 Two-Hand Rhythmic Exercises.
Unit 6

LESSON 1

Extended Harmony-9th Chords

As was diagramed in Units 1 and 2, the fundamental building blocks of any extended jazz harmony are the 7th chords. The first pitch class that is considered part of the extended harmony (a chord extension) in jazz is the ninth scale degree, the base equivalency being the second scale degree. A chord extension is a scale degree added to a seventh chord that results in a chord having more than the four notes that comprise the 7th chord, giving the chord a more complex harmony and timbre. In Example 6.0 the most commonly utilized 9th chords are illustrated with their corresponding chord symbol notation and root position construction.

Example 6.0. (4) 9th Chord Types.

In order to practice recognizing the various 9th chords that exist in jazz harmony, it is crucial that students not only be able to recognize the 9th chords when played on the...
piano, but also sing them and internalize the intervals and 7th chords that comprise each individual 9th chord. Example 6.1 illustrates how the student should approach practicing the 9th chords by playing and singing each one. The student should begin by singing only the 7th chord to reinforce each 9th chord’s fundamental structure and, after that step is completed, continue singing the complete 9th chord. The top staff of each example is to be played on the piano and sustained while the student sings the notes of the lower staff. It is also recommended that the student take time to internalize the different intervals that exist between scale degrees five, seven, and nine in each unique 9th chord. Begin the exercise by singing each pitch of the chord slowly and freely, repeating each chord three to five times. Once pitch accuracy and pitch confidence have been established repeat the exercise with a metronome at a slow tempo ($\text{e} = 60$). Use the piano the first few repetitions with the metronome and then sing the exercise without any harmonic accompaniment. The goal should be to sing the example a cappella with a consistent rhythmic pulse.

Example 6.1. (5) 9th Chords with Arpeggios and Piano Accompaniment.
Minor 9th Chord

C-7

C-9

Dominant 9th Chord

C7

C9

Minor-Major 9th Chord

C-(maj7)

C-9(maj7)

Major 9th Augmented Chord

C(maj7+)

C(maj9+)
LESSON 2

Minor ii-V-i

As with all tonal music based on the Western European harmonic system, the two most prevalent modal qualities are major (as discussed in previous chapters) and minor. In a major key the chord sequence ii-V-I contains no altered pitches because it is derived from the Ionian mode. In contrast, because a minor key is based on the Aeolian mode, the chord sequence assumes altered tones. The ii chord contains a flat 5 and the V chord commonly has altered chord extensions. The most common altered chord extension used on a V chord in a minor ii-V-I sequence is a flat 9. In Example 6.2 the minor ii-V-i progression is depicted with its corresponding chord symbols and Roman numeral analysis.

Example 6.2. Minor ii-V-I Chord Progression.

Example 6.3 illustrates an effective practice exercise that will help reinforce aural and theoretical memorization, retention, and synthesis of the minor ii-V-i chord progression. As with all practice exercises included in this essay, Example 6.3 should first be practiced rubato with a piano to reinforce pitch accuracy. After consistent pitch accuracy is achieved, the exercise should be practiced with a piano and a metronome to reinforce a steady rhythmic pulse. The ultimate goal of the exercise should be to sing the
example a cappella with a metronome, demonstrating pitch accuracy and a consistent rhythmic pulse.

Example 6.3. Minor ii-V-I Progression with Arpeggios and Chords.
LESSON 3

Chord Progressions

In the jazz standard repertoire there are certain specific tonal centers within a given composition towards which songs have a tendency to harmonically gravitate. These scale degrees include, but are not limited to, I, iii/III, IV, and vi/VI. It is of the utmost importance that students of jazz possess the ability to hear and aurally recognize fundamental harmonic tendencies as they relate to temporary modulation within the context of a given composition. This competency will serve them in the improvisation arena as well as the various applications regarding composition. Example 6.4 illustrates four of the most common chord progressions found in the jazz standard repertoire. While simple chord voicings are provided as a reference, students are encouraged to create their own unique chord voicings. A chord voicing is the specific arrangement of notes used to construct a chord played in two hands. The more ways students can hear the same chord, the faster they will be able to process a given chord and respond while improvising.
Example 6.4. (4) Diatonic Chord Progressions.

LESSON 4

Guide Tones

As introduced in Unit 2 the best way to learn the harmonic components of a composition taken from the standard jazz repertoire is to sing the three fundamental notes that comprise any chord (scale degrees 1, 3, and 7). These three unique notes can also be
used as *guide tones* or target notes. A guide tone is a note that serves as a landmark for both harmonic and melodic resolution usually occurring on a change of harmony (chord change). The most efficient practice technique used to develop the ability to hear, memorize, and recall any set of designated guide tones is to sing them. The use of the piano is of tremendous importance because it provides the harmonic framework against which the guide tones can be discriminated and the student can absorb their particular melodic and harmonic colors. In Example 6.5 the chord changes for the composition “All the Things You Are” were used in an original composition “You are All the Things.” There are four unique tonicizations that occur in this piece and they are the following key centers: III, VII, bVI, and I. Notice that each temporary change of key is established (preceded) by use of a ii-V sequence.

Example 6.5. Chord Progression for “You Are All Things.”
In Example 6.6 the chord progressions that are used in the song “You Are All Things” are constructed using the three-note voicings (scale degrees 1, 3, and 7) as found earlier in Unit 5 with the song “All Dolled Up.” Notice that the temporary tonal centers are identified by number and enclosed within a box. Students should be responsible to sing each one of the notes in sequence with and without the use of a piano demonstrating a consistent rhythmic pulse. After internalization/aural memorization of each of the three separate pitches has been demonstrated, the entire class can be divided in order to facilitate the singing of each chord in tempo demonstrating pitch accuracy and a consistent rhythmic pulse.
Jazz is considered by most to be its own musical language. As is common with any language, spoken or otherwise, there are basic developmental processes that must occur in order to build a vocabulary, facilitate comprehension, literacy, reinforce grammatical rules, and most importantly enable the ability for unique and individual expression. All language learning begins with the process of imitation. It is through the repetition and ultimately the imitation of sounds that the ability to form words is created.

Just as spoken language derives its roots from aural imitation and repetition so does the jazz language. The jazz language must be studied in order to begin the long journey of developing a jazz vocabulary that will ultimately lead to the ability to artistically express one’s self in an individualized and unique manner. “In jazz you are what you hear. The improvising musician must be able to process the sounds (scales/chords/rhythms) going on around him, and have an aural command of these elements in order to successfully construct logical, meaningful solos on his instrument,” states Professor Gary Keller from The University of Miami. In order to truly hear the

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jazz language, recordings must be listened to repeatedly in the pursuit of aural
memorization of the improvised melodies, phrasing, articulation, harmony, rhythmic
treatment, and all other aspects that are characteristic of the music.

Transcription is the means by which recorded music is written in standard music
notation. Aural Transcription is the process of being able to vocalize (sing) a recorded
musical excerpt capturing all of the unique stylistic characteristics contained in the
musical performance. As students are developing the ability to transcribe improvised
solos and chord progressions it’s important that they also be internalizing the jazz
language while building a jazz vocabulary. Each student will have the responsibility to
prepare an aural transcription of an improvised solo. Each solo will then be performed in
class along with the original recording. Because this is an unfamiliar process to many
instrumentalists (and many vocalists for that matter), beginner to intermediate-level
recorded examples will be assigned for the first aural transcription project. Table 5 lists
possible artists, song titles and specific recordings that would be considered appropriate
for the first aural transcription project.
Table 5. Sample Performances for Aural Transcription 1

<table>
<thead>
<tr>
<th>Artist</th>
<th>Song Title</th>
<th>Album Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chet Baker</td>
<td>“There Will Never Be Another You”</td>
<td><em>The Best of Chet Baker Sings</em></td>
</tr>
<tr>
<td>Hank Mobley</td>
<td>“If I Should Lose You”</td>
<td><em>Soul Station</em></td>
</tr>
<tr>
<td>Horace Silver</td>
<td>“Doodlin’”</td>
<td><em>Horace Silver and the Jazz Messengers</em></td>
</tr>
<tr>
<td>Kenny Dorham</td>
<td>“Blue Bossa”</td>
<td><em>The Best of Kenny Dorham</em></td>
</tr>
<tr>
<td>Sarah Vaughan</td>
<td>“All of Me”</td>
<td><em>The Essential Sarah Vaughan</em></td>
</tr>
</tbody>
</table>

LESSON 6

Rhythmic and Melodic Dictation

Examples 6.7 and 6.8 are to be used in the classroom as practice exercises for melodic and rhythmic dictation. Each example should be performed four times to allow students the opportunity to notate the example. Either a metronome or the tapping of a steady pulse must be provided during each performance of each example.

Example 6.7. Unit 6 Rhythmic Dictation Examples.
Example 6.8. Unit 6 Melodic Dictation Examples.
Example 6.9. Unit 6 Rhythmic Exercises.
Unit 7

LESSON 1

Chord Progressions

It is unlikely, if not impossible, that a jazz musician can retain and/or recall every single composition in the standard jazz repertoire. For this simple fact alone it is imperative that a jazz musician develop the skill that will allow near-simultaneous harmonic analysis and retention of harmonic and melodic structure when hearing a song for the very first time. The most effective process to enhance this ability is the focused study of standard harmonic progressions (chord changes) found in the jazz repertoire. Example 7 shows eight major and minor, frequently-used chord progressions found within the jazz repertoire. All of the chord sequences presented here and throughout the entire essay need to be played on the piano, and repeated listening to the recorded examples contained on the accompanying CD needs to occur.

Example 7.0. (8) Diatonic/Non-Diatonic Chord Progressions.
Most bass players would agree that the foundation of all harmonic structure is the root of the chord. Without the root of the chord firmly in place most harmony tends to lose clear tonal definition. In order to truly understand the working relationship of the tonic with the rest of the harmony as well as the melody, construction of a bass line must be learned. A bass line is the sequential note choices played by a bass player that unmistakably establishes the root and often the quality of each chord as it occurs in sequence.

There are some very common techniques utilized by bassists that allow 1) the root to be played at the exact moment that a chord changes and a new chord is presented, 2) identification of the quality of each chord, and 3) maintaining smooth and logical voice leading between different chords. Voice Leading as it pertains to bass-line construction is defined as the technique of maintaining relatively smooth linear or arpeggiated phrases.
that contain very minimal skips and leaps of large intervals. Example 7.1 demonstrates some of the most common methods of bass line construction. It should be noted that these bass lines are to be sung and not played, so attention should be paid to range and intervallic relationships of notes.

Example 7.1 illustrates a linear approach to bass line construction. In this example the root of the first chord is played on the downbeat of measure 1 and the root of the following chord is played on the downbeat of measure 2. Most often in 4/4 time the bass line consists of quarter notes that provide a rhythmic momentum to the music and help to preserve forward motion in performance. This type of bass line is called a walking bass line. One of the techniques employed by experienced bass players is called an approach technique. An approach technique is simply a manner of approaching the target note (most often the root of the chord) by either a half or whole step above or below.

Example 7.1. Linear Bass line Construction Techniques.
Example 7.2 shows the construction of an arpeggiated bass line. All of the approach techniques remain the same for the construction of a linear bass line as they do for an arpeggiated bass line. Note that it is also acceptable to outline the entire 7th chord that unquestionably establishes the chord quality and harmonic structure.

Example 7.3 provides a functional bass line for the 12-bar blues progression introduced in Unit 1. Combinations of the linear and arpeggiated approach techniques have been employed in this example.

Example 7.3. 12-Bar Blues Sample Bass Line.
Students should be required to create their own bass lines using the 12-bar blues form as well as perform them in class for one another. The culmination of this particular lesson is the synthesis of bass-line singing and guide-tone singing in combination with improvisation. Example 7.3 can be used as the universal bass line that the entire class can sing. Example 7.4 diagrams the bass line as well as the guide tones (scale degrees three and seven) with a common rhythmic accompaniment pattern called a *comping pattern*. The class is divided into three groups, each group being responsible for either the bass line or one of the two guide tones. While the class sings through the example, one student is selected to vocally improvise, utilizing the blues scale and any other harmonic material (modes) that is appropriate.

Example 7.4. 12-Bar Blues with Bass Line and Guide Tone Accompaniment.
LESSON 3

Jazz Scales

The Diminished Scales

The *diminished scale* (also known as an octatonic scale) is a symmetrical scale that contains eight non-repeating notes and can be divided equally in half, and begins with the interval of a whole step. Because of its symmetrical nature and the fact that it alternates whole and half step intervals between subsequent notes, there only exist three unique diminished scales. 43 It’s also helpful to visualize the diminished scale in terms of its tetrachord components: two minor tetrachords separated by a half step. The diminished scale is perfect for melodic and harmonic source material for improvisation when presented with a fully diminished chord in a composition and some forms of the

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altered dominant that will be discussed in later chapters. Example 7.5 shows the tertrachord composition of the diminished scale along with the intervallic composition, and Example 7.6 illustrates the three unique diminished scales that exist in the Western European harmonic system.

Example 7.5. Diminished Scale with Tetrachord Composition.

Example 7.6. (3) Diminished Scales.

Example 7.7 is a practice exercise that will serve to reinforce the unique harmonic colors of the diminished scale using the fully diminished 7th chord as the harmonic context. The top staff should be played and sustained on the piano while the bottom staff is sung. The exercise should be practiced and repeated in all twelve keys.
Example 7.7. (3) Diminished Scales with Fully-Diminished 7th Chords.

The auxiliary diminished scale is constructed by beginning with a half step instead of a whole step as shown in the previous examples and contains the exact same symmetrical formula as the diminished scale. The other distinguishing characteristic of the auxiliary diminished scale is that its tetrachord components are the combination of a two diminished tetrachords separated by a whole step as diagramed in Example 7.8. The three auxiliary diminished scales in Example 7.9 are the only three unique scales that exist due to their symmetrical nature. Example 7.11 provides some sample exercises that
can be used to reinforce melodic and harmonic retention of the auxiliary diminished scale.

Example 7.8. Auxiliary Diminished Scale with Tetrachord Composition.

Example 7.9. (3) Auxiliary Diminished Scales.
Example 7.10. (3) Auxiliary Diminished Scales with Dominant 7th Chords.

The Bebop Scale

In the jazz vocabulary there exist scales that are hybrid scales that were created by jazz musicians as tools for extended harmonic color and non-standard melodic and harmonic resolutions. One of these scales is called the bebop scale. As the name implies, it was created during the bepop era in jazz music and is defined as an eight-note major scale that includes both the major and flat seventh scale degrees. 44

Example 7.11 shows the C bebop scale both descending and ascending with the corresponding syllables. Example 7.12 illustrates a practice exercise to be used for developing aural retention of this particular scale. As with all examples in this essay each should be practiced in all twelve keys.

Example 7.11. *Bebop Scale Ascending/Descending.*


LESSON 4

Improvisation

Improvisation is a key element in a jazz ear training class and assists in the synthesis of theoretical and aural material. According to Frank Carlberg, a professor at the New England Conservatory of Music, “The students work on their improvisations and
interpretations [in class]. For instance, early on we work on modal improvisation… and then try to use those materials in an improvisatory manner over similar structures.\footnote{45}

As mentioned previously in Unit 4, Lesson 4, students must reinforce the ability to vocally improvise so they can continue to gain an aural awareness of melodic and harmonic shape, color, and tendencies. The class will provide the harmonic context for the individual student improvisations by lightly humming the designated tonic chosen by the professor. Each student will be asked to step into the center of the circle, at which time they will be assigned either the auxiliary diminished, diminished, or bebop scale to use during the improvisation. The student will be responsible for using the corresponding syllables accurately and maintaining consistent pitch accuracy.

\footnote{45 Frank Carlberg, interview by author, email correspondence, Boston, Ma., 2 March 2008.}
Unit 8

LESSON 1

Thirteenth/Sixth Chords

The highest-numbered chord extension found in the jazz harmonic vocabulary is the 13th chord. The number thirteen is derived from the base equivalent of the sixth scale degree. The harmonic applications for the 13th chord are related most frequently to defining the chord suffix of a dominant chord. The term 6th chord is used almost exclusively when defining a chord suffix for a major or minor chord. Example 8.0 illustrates a dominant 13th chord constructed in root position and also provides a commonly used piano voicing for the same chord. Example 8.1 shows an example of a major and minor 6th chord both constructed in root position.

Example 8.0. Dominant 13th Chord.

Example 8.1 Major and Minor 6th Chords
To be able to hear the subtle harmonic differences between a dominant 9th chord and a dominant 13th chord takes a developed ear, and that aural competency can only be developed by a combination of listening to the various unaltered dominant chords played on the piano, singing the arpeggios for each of the dominant chords, and playing the chords on the piano.

Often-times, to increase the harmonic texture and create different harmonic hues, the 6th scale degree will be used in conjunction with the 9th scale degree. When this occurs, the b7th scale degree is also included in the minor 6/9 chord and the 7th scale degree is omitted from the major 6/9 chord. The result is diagramed in Example 8.2 showing the root-position chord construction of both a major and minor 6/9 chord and also a common piano voicing for each chord.


<table>
<thead>
<tr>
<th>Cmaj6/9</th>
<th>Cmin6/9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LESSON 2

Chord Progressions

Example 8.3 shows seven major and minor, frequently used chord progressions found within the jazz repertoire. In this particular example some of the chord sequences modulate to non-diatonic keys, which is a common occurrence in many compositions in the jazz standard jazz repertoire. All of the chord sequences presented here and
throughout the entire essay need to be played on the piano, in conjunction with repetitive listening of the recorded examples contained on the accompanying CD.

Example 8.3. (7) Diatonic/Non-Diatonic Chord Progressions.
LESSON 3

Jazz Melodic Minor

The melodic minor scale (also referred to as *jazz minor*) used in the jazz harmonic system is not the same scale found in the Western European classical harmonic tradition. The jazz minor scale is identical both ascending and descending and is constructed from a combination of a minor and major tetrachord separated by a whole step.\(^{46}\) Using melodic minor as the first of the seven modes of melodic minor, Example 8.4 diagrams the order of the modes of melodic minor and their tetrachord composition.

Example 8.4. (7) Jazz Minor Modes with Tetrachord Composition.

Dorian °7 (Ionian §3)

Phrygian §6 (Dorian §2)

Lydian #5 (Lydian augmented)

Mixolydian #4 (Lydian §7)

Aeolian §3 (Mixolydian §6)

Locrian §2 (Aeolian §5)

Ionian #1 (Locrian b6, Superlocrian, altered, diminished whole-tone)
Table 6 provides a precise outline of the sequence of the modes of melodic minor with their respective tetrachord composition.

Table 6. Order of (7) Jazz Minor Modes with Tetrachord Composition

<table>
<thead>
<tr>
<th>Mode Number</th>
<th>Mode Name</th>
<th>Tetrachord Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dorian 7</td>
<td>Minor + Major</td>
</tr>
<tr>
<td>2</td>
<td>Phrygian 6</td>
<td>Phrygian + Minor</td>
</tr>
<tr>
<td>3</td>
<td>Lydian #5</td>
<td>Lydian + Diminished</td>
</tr>
<tr>
<td>4</td>
<td>Mixolydian #4</td>
<td>Lydian + Minor</td>
</tr>
<tr>
<td>5</td>
<td>Aeolian 3</td>
<td>Major + Phrygian</td>
</tr>
<tr>
<td>6</td>
<td>Locrian 2</td>
<td>Minor + Lydian</td>
</tr>
<tr>
<td>7</td>
<td>Ionian #1</td>
<td>Diminished + Lydian</td>
</tr>
</tbody>
</table>

The modes of melodic minor are extremely versatile, and usable in a myriad of both harmonic and melodic applications, and therefore need to be internalized. Not only do the students need to be able to identify a given mode when played on the piano, but they must also be able to sing each mode ascending and descending with the appropriate syllable name and consistent rhythmic pulse. Example 8.5 illustrates a practice exercise that will aid in the retention of the modes of melodic minor. The top line should be sung while the bottom two lines should be played and sustained on the piano. The modes should be practiced in all twelve keys.
Example 8.5. (7) Modes of Jazz Minor with Piano Accompaniment.

C Dorian $b7$

D Phrygian $b6$

Eb Lydian #5
F Mixolydian #4

G Aeolian 3

A Locrian 2
LESSON 4

Altered Dominant Chords

In the jazz harmonic system there exist both dominant and *altered dominant* chords. The alterations to the dominant chord are fairly standardized and they are applied to the chord suffix in efforts to increase the tension/dissonance of a particular chord, thus changing the chord’s harmonic color. Illustrated below in Table 7 are the various forms of alterations that are common in the jazz harmonic concept.

Table 7. Possible Alterations to a Dominant Chord

<table>
<thead>
<tr>
<th>Chord Suffix</th>
<th>Possible Alteration</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>b9 or #9</td>
</tr>
<tr>
<td>11</td>
<td>#11</td>
</tr>
<tr>
<td>5</td>
<td>b5 or #5</td>
</tr>
<tr>
<td>13</td>
<td>b13</td>
</tr>
</tbody>
</table>

Example 8.6 shows the various forms of the altered dominant 7th chords in the Key of C constructed in root position as well as some suggested piano voicings.
Example 8.6. (6) Altered Dominant Chords with Piano Voicings.

One of the most effective methods besides playing the individual altered dominant 7th chords on the piano singing the arpeggios of each chord in all twelve keys.

Example 8.7 diagrams the chords displayed in Example 8.6 and includes all of the
syllable names for each chord tone in the arpeggio. It also includes the enharmonic variable alterations that should be included in each arpeggio.

Example 8.7. (6) Altered Dominant Chords with Arpeggios.
LESSON 5

Melodic Minor Chord/Scale Relationships

The seven different modes of melodic minor can be utilized in different harmonic contexts to create various degrees of consonance and dissonance as well as greatly changing the harmonic color palette. In the following examples the seven unique modes of melodic minor are shown, along with some of the most common chords with which they are associated. Note that the following mode/chord correlations are simply a guide,
and students should be encouraged to explore different chord/mode relationships as a means of discovering new harmonies and broadening their harmonic palette. As with all examples included in this essay they should be practiced in all twelve keys.

Example 8.8. (7) Modes of Jazz Minor with Chord Relationships.
Ionian #1 (Altered)

Altered Dominant
Unit 9

LESSON 1

Chord Progressions

Example 9.0 illustrates 15 frequently used chord progressions found within the jazz repertoire. As is found in the examples in Unit 5, some of the following examples modulate to non-diatonic keys, which is a common occurrence in many compositions in the jazz-standard repertoire. All of the chord sequences presented here and throughout the entire essay need to be played on the piano, in conjunction with repeated listening to the recorded examples contained on the accompanying CD.

Example 9.0. (15) Diatonic/Non-Diatonic Chord Progressions.
LESSON 2

Guide Tones

Guide tones, or “target notes” as they are sometimes called, are the chord tones that are chosen as arrival points at certain harmonic junctures during an improvised solo. These particular notes may be predetermined by the improvisor or may be chosen at random but they are usually notes that either help define the quality of a chord (the root, third, or seventh scale degree) or create a certain amount of dissonance/color within the chord (altered chord tones). These guide tones are most often played when a chord changes in a song.

Example 9.1 is an original composition titled “Meetin’ Ms. Smith” that uses the same chord changes as the jazz standard “Have You Met Ms. Jones.” In the example the chord changes are included along with the fundamental set of guide tones (the root, third and seventh scale degrees). Students should be able to sing each respective set of guide tones with pitch accuracy and a consistent rhythmic pulse. Once students have mastered this skill, the entire class can be divided into three groups, each group singing a different guide tone, thus creating the chords of the song and reinforcing the fundamental guide tones.
LESSON 3

Chord Tone Recognition

In combination with being able to sing all the respective guide tones independently, students should also be able to identify specific chord tones when included in the context of a chord on the piano and also be able to sing a specific chord tone when played a chord on the piano. Examples 9.2, 9.3, and 9.4 diagram the major, minor and dominant 9th chords. Example 9.2 shows a practice exercise that reinforces this competency. The objective of the first exercise is to identify the 9th scale degree. First the ninth scale degree will be played as the top voice of the piano chord so it is most easily recognized. Each successive chord will contain the ninth scale degree but it will move farther away from the top voice with each chord. The student will be required to arpeggiate the chord being played on the piano by singing from the root in order to identify the particular arrangement of notes and to also identify the location of the ninth scale degree. The top staff represents what the student should sing and the bottom two staves represent the chords to be played on the piano.

Example 9.2. Major 9th Chords with Arpeggios and Inversions.
Example 9.3 is very similar to Example 9.2 but the chord quality has changed from major to minor. The ninth scale degree is the one that needs to be identified.
Example 9.3. Minor 9th Chords and Inversions.

Example 9.4 illustrates the practice exercise for a dominant 9th chord.
Example 9.4. Dominant 9th Chords with Arpeggios and Inversions.
LESSON 4

Improvisation

Students need to develop the ability to internalize the various modes of melodic minor and be able to use them in the context of an improvisation. This skill will allow them a greatly enhanced harmonic palette from which to draw ideas when improvising. The technique used in the context of this ear-training sequence will require students to sing the modes of melodic minor a cappella, with piano accompaniment, as well as with just the tonic being sung as accompaniment.

The first exercise will require the class to form a circle and lightly hum the tonic assigned by the professor. Each student will have the opportunity to step into the center of the circle and improvise using the mode of melodic minor assigned by the professor. Because the modes of melodic minor are relatively foreign for most students it is the author’s opinion that only the first two or three modes be used during this exercise. The inclusion of more or fewer modes of melodic minor for use during improvisation is at the discretion of the teacher and should be chosen in accordance with the skill level of the particular class.

The second practice exercise will require the professor to play some of the alternate dominant chords on the piano while the student improvises using the correct mode that correlates to the particular chord being played (as discussed in Unit 5). As with the first exercise, the author suggests minimizing the number of altered dominant chords to be used for a harmonic foundation for improvisation to two or three. This will allow students the opportunity to refine their aural skills between class meetings and really internalize each individual chord and its correlated mode.
LESSON 4

Non-Swing Rhythms

The swing rhythmic concept is the predominant rhythmic feel in jazz music but there are many other rhythmic interpretations that have found their way into the jazz vernacular. The most prevalent rhythmic interpretations with American roots besides swing are the funk, fusion, and rock rhythmic styles. The rhythmic interpretation played in these styles emphasizes a return to the even or equal division/subdivision of the beat. It is much closer to the Western Classical tradition than swing rhythm.

Example 9.5 includes a set of rhythmic practice exercises that will aid in developing a consistent rhythmic feel or pocket. One of the most noticeable differences between swing rhythmic notation and non-swing notation is the fact that there are many more sixteenth notes used in non-swing rhythmic notation. All rhythmic exercises should be practiced with both hands and always with a metronome.

Example 9.5. Unit 9 Rhythmic Exercises.
Example 9.6. Unit 9 Two-Hand Rhythmic Exercises.
As previously discussed in Unit 5 there are many different chord extensions that can be used to create specific harmonies with varying degrees of consonance and dissonance. The 11th is an extension whose base equivalency is the fourth scale degree. The 11th only appears in its natural, unaltered form in one chord, the minor 11th chord. In all other contexts the 11th scale degree is altered by raising it a half step resulting in a +11 (#11) chord. Example 10 illustrates both the minor 11th chord as well as the most common dominant chord that contains the +11(#11).

Example 10.0. Minor 11th and Dominant 13+11 Chords.

The following example shows how the chords should be sung using an arpeggio that will assist in the aural retention of the vertical structure and intervallic relationships.
of the chords. The chords in the bottom two staves should be played and sustained on the piano while the top staff is sung rubato. Pausing briefly on the 11th scale degree will help reinforce that sonic quality before completing the rest of the arpeggio. Once pitch accuracy is achieved the exercises should be sung using a metronome to reinforce a consistent pulse. As with all exercises contained in this essay they should be practiced in all twelve keys.

Example 10.1. Minor 11th and Dominant 13+11 Chords with Arpeggios.

LESSON 2

Building upon the improvisation exercises that were presented in Unit 9, the modes of melodic minor that were not addressed in the previous chapter should be
presented now. The students will sing the modes of melodic minor a cappella, with piano accompaniment, as well as with just the tonic being sung as accompaniment.

The first exercise will require the class to form a circle and lightly hum the tonic assigned by the professor. Each student will be required to step into the center of the circle and improvise using the mode of melodic minor assigned by the professor. The number of modes to be included is at the discretion of the teacher and should be chosen in accordance with the skill level of the particular class and how much was accomplished during the exercise in Unit 9.

During the second practice exercise the professor will play the remaining alternate dominant chords that were not addressed in Unit 9 on the piano. The student will improvise using the correct mode that correlates to the particular chord being played (as discussed in Unit 8).

LESSON 3

Latin Rhythms

As discussed previously in Unit 9 there are a number of other genres of music that have found their way into the jazz idiom. The most predominant musical genres that originate from outside of the United States that are frequently included in the jazz genre are Bossa Nova, Samba, Latin Jazz (a generic term used to describe jazz-influenced music from Central and South America and the Caribbean), and Salsa.

It is extremely difficult if not impossible to verbalize a rhythmic concept and be able to teach a student to interpret it. Therefore, when interpreting Latin rhythms it is crucial that the student be required to do a lot of listening to musical examples from each
particular musical genre to facilitate and expedite the learning process. Example 10.2 includes a variety of different rhythms that are idiomatic to the Latin rhythmic concept. These rhythms should be practiced in each hand using a metronome to reinforce a consistent rhythmic pulse.

Example 10.2. Latin Rhythmic Examples.

Table 8 provides an abbreviated list of some of the recognized artists with exemplary recordings that embody each different Latin musical style. Students should be required to listen to these and many other recordings to facilitate the learning of each unique rhythmic concept.
Table 8. Examples of Recordings for Latin Rhythmic Styles

<table>
<thead>
<tr>
<th>Musical Style</th>
<th>Artist</th>
<th>Song</th>
<th>Album Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bossa Nova</td>
<td>Tom Jobim &amp; Elis Regina</td>
<td>“Triste”</td>
<td>Elis &amp; Tom</td>
</tr>
<tr>
<td>Samba</td>
<td>Tania Maria</td>
<td>“Florzinha”</td>
<td>Viva Brazil</td>
</tr>
<tr>
<td>Latin Jazz</td>
<td>Eddie Palmieri</td>
<td>“EP Blues”</td>
<td>Listen Here!</td>
</tr>
<tr>
<td>Salsa</td>
<td>Sonora Ponceña</td>
<td>“A Cali”</td>
<td>Soul of Puerto Rico</td>
</tr>
</tbody>
</table>

LESSON 4

Aural Transcription

As was introduced in Unit 3 the aural transcription is an exceptional way to reinforce many facets of aural development as they relate to the study of jazz music. For this particular aural transcription the student will be challenged with a more advanced improvised solo than before. The list of recorded examples in Table 9 below provides a thorough collection of the appropriate level of solos to be considered for this particular aural transcription exercise.

Table 9. Sample Performances for Aural Transcription

<table>
<thead>
<tr>
<th>Artist</th>
<th>Song Title</th>
<th>Album Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ella Fitzgerald</td>
<td>“Air Mail Special”</td>
<td>First Lady of Song Disc 1</td>
</tr>
<tr>
<td>Wynton Kelly</td>
<td>“Autumn Leaves”</td>
<td>Someday My Prince Will Come</td>
</tr>
<tr>
<td>Stan Getz</td>
<td>“There Will Never Be Another You”</td>
<td>The Steamer</td>
</tr>
<tr>
<td>Miles Davis</td>
<td>“Oleo”</td>
<td>Bag’s Groove</td>
</tr>
<tr>
<td>Gene Ammons &amp; Sonny Stitt</td>
<td>“There Is No Greater Love”</td>
<td>Boss Tenors: Straight Ahead from Chicago 1961</td>
</tr>
</tbody>
</table>
LESSON 5

Pentatonic Scales

The word *pentatonic* derives its name from the Greek word *pente*, which means “five.” A *pentatonic scale* is a five-note scale that does not contain a single tritone or half step interval. The lack of dissonance within the scale attributes to its very tranquil and serene melodic quality. There are two types of unaltered pentatonic scales, the major and minor pentatonic scales. The *major pentatonic scale* is defined by its intervallic relationships between individual notes, which are: W, W, W+H, W. Example 10.3 illustrates a major pentatonic scale.

Example 10.3. Major Pentatonic Scale.

![C Major Pentatonic Scale](image)

Example 10.4 shows the construction of a minor pentatonic scale that is defined by its intervallic relationships between individual notes which is: W+H, W, W, W+H.

Example 10.4. Minor Pentatonic Scale.

![C Minor Pentatonic Scale](image)
LESSON 6

Melodic and Rhythmic Dictation

The following examples include typical rhythms found in the Latin musical styles listed earlier in this chapter. Each example should be performed four times with a metronome accompaniment to provide a consistent rhythmic pulse. The melodic examples incorporate triads, 7th chords, and both major and minor modes.

Example 10.5. Unit 10 Rhythmic Dictation Examples.
Example 10.6. Unit 10 Melodic Dictation Examples.
APPENDIX B

Initial Interview Questions

Questions for Jazz Ear Training Faculty:

1) How would you justify the inclusion of a jazz ear-training course in a jazz curriculum?

2) How many hours a week does the course (courses) meet? Do you consider that a sufficient amount?

3) Do you use accompanying textbooks or computer software with your jazz ear-training course(s), and if so, which ones?

4) Are there different sections of jazz ear-training for vocalists and instrumentalists? If so, in what ways do they differ?

5) What are the major elements discussed in the jazz ear training classes you teach? Is there any one content area that you emphasize more than other areas? Why?

6) Please describe the order/sequence in which the different elements are introduced in the course and the rationale for the sequence. Are your courses harmony-centered or rhythm-centered?

7) What do you consider to be the most challenging element for the students in terms of jazz ear-training and how do you teach/reinforce that particular element in your course(s)?

8) Is there a keyboard element (students playing) included in your jazz ear-training course(s), and if so, what proficiencies must the students demonstrate?

9) Is there any required listening as part of your course(s), and if so, please describe?

10) Are students required to sight-sing music during the course, and if so, what system (solfegio, numbers, etc.) is used and why?

11) Do you use improvisation in your jazz ear-training course(s) and if so, how do you incorporate it? Is it instrument specific or are students required to vocally improvise?

12) Is any diagnostic exam given at the beginning of the course(s) to ascertain the general knowledge level of the class?
13) What are the competencies the students must demonstrate when they complete your course(s)?

14) Do you have additional comments and recommendations regarding the implementation of jazz ear training courses?
APPENDIX C

Informed Consent Form

A Two-Semester Course Sequence for Jazz Ear-Training with Application for Vocal Improvisation
By Tim Brent

INFORMED CONSENT FORM

PURPOSE:
The goal of this research is to develop a codified system and course sequence for courses taught at the college level.

Responses to the questionnaire by acknowledged college-level instructors of jazz ear-training courses are intended to provide insight into the rationale, justification, and pertinent material included in extant jazz ear-training courses. In addition, the responses written by acknowledged Jazz Ear training pedagogues can also provide insight into varying approaches to teaching Jazz Ear Training at the college level.

PROCEDURE:
The informed consent form and the questionnaire will be attached to an email (recruitment letter) and sent out to the participants. All participants are asked to answer this questionnaire (see end of document) regarding jazz ear training.

The participants will be asked to state in their email response whether they agree that their names will be published or not. Each participant acknowledges through his/her responses to the questionnaire (via email) that he/she has read and understood the informed consent form and further agrees to its terms. The responses will be used for research and will be included in the co-investigator’s doctoral essay. Through responding to the questionnaire and editing it as the participant wishes it to appear in the document, each participant also agrees that his/her responses will be published in the essay.

RISKS:
No foreseeable risks or discomfort are anticipated for you by participating. Because this research is being conducted through email, security of your correspondence cannot be guaranteed.

BENEFITS:
Although, no benefits can be promised to you by participating in this study, the information gathered and distributed later is intended to help codify a system of instruction and course sequence for college-level jazz ear-training courses.
ALTERNATIVES:
You have the alternative to not participate in this study. You may stop participating any time or you can skip any questions you do not want to answer. Nothing will happen to you as a result of halting participation.

COSTS:
No costs are anticipated for you to participate in this study.

PAYMENT TO PARTICIPATE:
No monetary payment will be awarded due to participation in this study.

CONFIDENTIALITY:
The participants’ names and responses will be made public in my dissertation, which will be submitted to the faculty of the University of Miami this Spring 2008 and will be available for educational purposes unless he/she indicates to the principle investigator that they would like their information to be kept confidential. Please state your preference in your email response on whether you want your name to be published or not.

RIGHT TO WITHDRAW:
Your participation is voluntary; you have the right to withdraw from the study.

OTHER PERTINENT INFORMATION:
The researcher will answer any questions you may have regarding the study and will give you a copy of the consent form after you have signed it. If you have any questions about the study please contact Timothy Brent co-investigator, at (your phone number) or tbren4t@gmail.com or Professor Rachel Lebon, at 305-284-5813 RLLebon@aol.com If you have any questions about your rights as a research participant, please contact the Human Subjects Research Office (HSRO) at 305-243-3195.

Please print a copy of this consent document for your records.
APPENDIX D

Participant Questionnaire Transcripts

PROFESSOR ARMEN DONELIAN - INTERVIEW
Via Email – March 18, 2008

1) How would you justify the inclusion of a jazz ear-training course in a jazz curriculum?

Justify? How would you justify its exclusion? Without it, no jazz curriculum is complete. Aural training, whether acquired by formal or informal means, is the basis for jazz improvisation.

2) How many hours a week does the course (courses) meet? Do you consider that a sufficient amount?

The number of contact hours is not as important as the frequency of contact. I think three 40-minute periods per week would be optimal. For practical (administrative) reasons, in schools where I’ve taught meetings are normally twice weekly for 1 hour.

3) Do you use accompanying textbooks or computer software with your jazz ear-training course(s), and if so, which ones?

I wrote my own materials that resulted in *Training the Ear Vols. 1 & 2* (Advance Music), because I could not find appropriate materials. They include text and CD with all musical examples. I have been told about computer software, but do not use any.

4) Are there different sections of jazz ear training for vocalists and instrumentalists? If so, in what ways do they differ?

I don’t put vocalists in different classes; that only prolongs certain problems. Individual talent aside, my experience over twenty years has shown that students on certain instruments develop distinguishable differences in aural and theoretical abilities. Pianists & bassists generally have better reading, theory and conceptualization skills; horn players also are better in theory as well as melodic phrasing, rhythm, transposing and articulation; guitarists & vocalists generally have reading problems but are more on their feet in live situations; drummers have good body coordination and their ability to read and aurally process rhythms is better, but generally lack theory and reading skills. Vocalists have good ears.
because they are always singing, but depending on their familiarity with reading & theory (some piano helps), they generally have difficulty identifying what they can hear & sing. Pianists understand most everything, but often can’t sing well. Horn players & vocalists have difficulty hearing the bass and chord voicings. It goes on and on. Again, these are generalizations that do not always hold true. However, rather than catering to these inequities, I believe in setting a standard that all must achieve. Therefore, ET becomes a one-room schoolhouse where the instructor must develop multiple educational strategies to employ in the moment to assist students of varying skill sets and temporal processing abilities to perform the same example. Teaching ET is one of the most challenging and yet rewarding activities for this reason.

5) **What are the major elements discussed in the jazz ear training classes you teach? Is there any one content area that you emphasize more than other areas? Why?**

As already mentioned, teaching ET requires multiple pedagogical strategies to address a variety of deficiencies in performing, reading, theory, dictation, composing and rhythmic independence. I focus on content and methods appropriate for the level of the students in each class. In my books, I’ve presented an organized approach, which, may and should be abandoned when the teacher finds that it does not meet the needs of the students.

6) **Please describe the order/sequence in which the different elements are introduced in the course and the rationale for the sequence. Are your courses harmony-centered or rhythm-centered?**

See above. I do not teach a method, but proceed from the needs of the students assigned to me.

7) **What do you consider to be the most challenging element for the students in terms of jazz ear-training and how do you teach/reinforce that particular element in your course(s)?**

Probably hearing chords, chord roots and chord progressions. See my second book.

8) **Is there a keyboard element (students playing) included in your jazz ear-training course(s), and if so, what proficiencies must the students demonstrate?**

Since students are required to take a basic keyboard class, I don’t duplicate that effort. However, having keyboard skills is a great asset in learning aural skills and I highly recommend it. Phil DeGreg’s Jazz Keyboard Harmony is an excellent book in that regard.
9) Is there any required listening as part of your course(s), and if so, please describe?

Jazz master solos; melodic, harmonic and rhythmic examples as composed by the instructor in class; student compositions; standards; compositions by well-known jazz composers; classical music; any other music as it relates to the ET curriculum.

10) Are students required to sight-sing music during the course, and if so, what system (solfegio, numbers, etc.) is used and why?

Yes; numbers; fosters a more direct connection between the experience of sound and the concept underlying the sound.

11) Do you use improvisation in your jazz ear-training course(s) and if so, how do you incorporate it? Is it instrument specific or are students required to vocally improvise?

Since students are doing so much improvisation throughout their other classes, I don’t require it. However, in a different setting I would, especially vocal improvisation, and especially for non-vocalists.

12) Is any diagnostic exam given at the beginning of the course(s) to ascertain the general knowledge level of the class?

Of course. We try to sort the students into homogenous groups, but nevertheless each class inevitably comprises a one-room schoolhouse to a certain degree.

13) What are the competencies the students must demonstrate when they complete your course(s)?

We have developed a departmental “exit exam” that all first-year students are required to pass before progressing into the second year. It covers the first year curriculum, which roughly corresponds to my first book, plus or minus a few things.

14) Do you have additional comments and recommendations regarding the implementation of jazz ear training courses?

More is required of an ear-training instructor than of instructors in other subjects. The ET teacher must CARE about the progress of his/her students, and demonstrate that caring by listening to, thinking about and inventing for students appropriate examples to help them advance from their current level to the next. It not only about the course – which of course must be structured in an organized fashion – but also about the personal authenticity of instruction that emanates...
from the teacher. Some music teachers can’t play, sing or demonstrate what they are trying to teach, or what they expect their students to be able to do, and students pick up on this right away. Therefore, I believe that teaching ear training is a calling, not just a job.
1) How would you justify the inclusion of a jazz ear-training course in a jazz curriculum?

Ear Training is part of a musician’s fundamental training and jazz ear training can address some specific issues related to the genre.

2) How many hours a week does the course (courses) meet? Do you consider that a sufficient amount?

Two hours. It is not a sufficient amount.

3) Do you use accompanying textbooks or computer software with your jazz ear-training course(s), and if so, which ones?

No textbooks or computer software are used in the class.

4) Are there different sections of jazz ear training for vocalists and instrumentalists? If so, in what ways do they differ?

We do not have different sections for vocalists and instrumentalists. I do not see that as necessary. You could argue for that, I’m sure, but then you could also argue for separate sections for drummers and percussionists……as well as for pianists and maybe guitarists. I’d rather keep them all together and simply separate them by level if there are enough students. Also, everybody in the class HAS to sing and everybody (including singers and drummers) in the class has to play a pitched instrument.

5) What are the major elements discussed in the jazz ear training classes you teach? Is there any one content area that you emphasize more than other areas? Why?

Major elements include intervals, chords, progressions. These elements are worked on both in passive (dictation, transcription) as well as in active (singing, playing) ways. Appropriate notation is also covered (melody, chord symbols, rhythm etc).

6) Please describe the order/sequence in which the different elements are introduced in the course and the rationale for the sequence. Are your courses harmony-centered or rhythm-centered?

We start with intervals as well as melodic dictation (incorporating rhythm). We then include chords and harmonic progressions. Through out all of this the student work on incorporating the covered topics into their improvisations and
interpretations. For instance, early on we work on modal improvisation (they transcribe (and sing AND play) Miles’ solo on So What etc) and then try to use those materials in an improvisatory manner over similar structures. We gradually then move to more challenging structures…. Straight Life, Song For My Father, Everywhere Calypso etc. The students also compose “improvisations” that they sing and play in class (or record). I hope the class is neither harmony nor rhythm centered but see below…..

7) **What do you consider to be the most challenging element for the students in terms of jazz ear-training and how do you teach/reinforce that particular element in your course(s)?**

The harmonic aspects seem to be a particular challenge for many students. Their harmonic proficiency (both active and passive) has to be built gradually with the aid of music that they are familiar with (or made familiar with).

8) **Is there a keyboard element (students playing) included in your jazz ear-training course(s), and if so, what proficiencies must the students demonstrate?**

No….. students play their own instruments (except singers and drummers who are asked to do certain assignments on pitched instruments).

9) **Is there any required listening as part of your course(s), and if so, please describe?**

Yes, they have two CDs that contain ear training drills as well as required repertoire. In addition they are given recordings of performances that they have to learn (Billie Holiday-Lover Man, Miles-So What, Bessie Smith-Evil Woman Blues, Lester Young-Back To The Land, Freddie Hubbard-Straight Life, Charlie Haden-First Song, Duke Ellington-Mood Indigo etc)

10) **Are students required to sight-sing music during the course, and if so, what system (solfegio, numbers, etc.) is used and why?**

We do not require sight singing.

11) **Do you use improvisation in your jazz ear-training course(s) and if so, how do you incorporate it? Is it instrument specific or are students required to vocally improvise?**

Yes we do improvise….see above. I also consider active ET as in the use of materials creatively, an important part of the process. It is not only about if we can take dictation but also about what do we hear when NOTHING is played.
12) **Is any diagnostic exam given at the beginning of the course(s) to ascertain the general knowledge level of the class?**

Yes, some students will receive advance placement and those are not required to take the class or take it for the second semester only.

13) **What are the competencies the students must demonstrate when they complete your course(s)?**

They are expected to hear a number of common harmonic progressions (such as the ones found in many “standard” tunes), be able to identify all intervals, seventh chords with common tensions, understand and notate rhythm correctly, improvise on modal, blues and standard tunes “intelligently”.

14) **Do you have additional comments and recommendations regarding the implementation of jazz ear training courses?**

Ear Training courses gain from frequent class meetings. Although twice a week is better than once, three times would be considerably better. Small class size is also helpful, as each student requires individual attention at times.
1) How would you justify the inclusion of a jazz ear-training course in a jazz curriculum?

In jazz you are what you hear. You have to be able to hear and recognize the tools that you’re dealing with on a daily basis. You have to understand not just what they are but what they sound like. I think ear training should be part of a broader jazz theory. It shouldn’t be its own course.

2) How many hours a week does the course (courses) meet? Do you consider that a sufficient amount?

Two. Well, actually 50 minutes. So 100 minutes. In and of itself it is a sufficient amount of time, but the fact that it only meets for one semester, no. Two hours of jazz ear training from the first semester of the freshmen year, then it would be enough. I think the ideal scope would be 4 semesters of jazz ear training integrated with jazz theory.

3) Do you use accompanying textbooks or computer software with your jazz ear-training course(s), and if so, which ones?

Not officially but Ron Miller has a program that some of the students get, and I did just purchase some of Shelly’s (Berg) books to recommend to some of the guys because its kind of an interactive thing with the CD and everything. Especially if you’re a little weak in the theory because it starts pretty much at ground zero. I would probably adopt a book in some kind of curriculum. Once again the problem is that we have everybody in one class. You have piano players with perfect pitch and drummers that are all in the same class. You have to decide what’s accessible that they know.

4) Are there different sections of jazz ear-training for vocalists and instrumentalists? If so, in what ways do they differ?

No. I try to design it so that even the people with really good ears might learn a little something theoretically or it will augment their theoretical knowledge as well as help their ears. Some of the freshmen might have really good ears but they don’t necessarily know what everything is yet or how it falls into the spectrum. So it’s helpful for them in that regard. I kind of teach a little jazz theory along with the ear-training rather than just full ear-training.

5) If you could design your own curriculum would you want to have different sections of ear training for different levels of students?

You’d have to have a series of levels and be able to test to the student’s level.
6) **What are the major elements discussed in the jazz ear training classes you teach? Is there any one content area that you emphasize more than other areas? Why?**

We start with tetrachords. All of the one, two, three, four combinations and triads. They should already know that. Triads in inversions, tetrachords, and then we move on to all the 7th chords. Then I introduce the seven diatonic chords (13th chords) of major and move quickly to the seven diatonic chords (13th chords) of melodic minor. I’ve been limiting each one to presenting the chord and the scale, kind of the whole entire sound rather than just a chord. They can hear it from the chord or the scale. That’s kind of a fair compromise. I show them how to build the voicings. I show them how you can use the same upper-structures to voice all of the major chords depending on what interval you put it over the bass. After we do all of the 7th chords of major and of melodic minor we do the chords of diminished scale: diminished 7th and diminished dominant, and the whole-tone scale. Then I classify all those chords according to quality instead of according to parent scale. Chords from the major family, minor family, and from the dominant family. If you play a Lydian dominant, you play a chord, a couple of voicings and the scale they have to recognize that its Lydian dominant to get full credit. If they say it’s a dominant chord they get half credit or if they say it’s a chord from melodic minor they get half credit. You have to play it by ear just to see what they’re capable of but after that (7th chords) we move on to ii-V-I progressions in major and minor and then any ii-V that can move to I (i). ii-V-I, tritone sub ii-V-I, IV-vii-I, #IV-VII-I, all the little ii-V things and where they go. I try to give them partial credit if they hear the roots but not necessarily the qualities. Then we move from cadences (a chord resolving to I) to turnarounds (a series of chords that eventually move to I), and then we move to the most common diatonically-related modulation. Modulation to IV, modulation to relative minor, modulation to III/iii, modulation to VI/vi. Then hopefully by the end of the semester we can build on that enough to where we can get into progressions. I’ve found that between the singers and the drummers the ability to comprehend progressions is very, very weak. They haven’t been exposed to thinking in terms of numbers or how many tunes go to the sub-dominant or go to the relative minor. The whole idea of learning progressions isn’t integrated enough. We also do dictation. We do dictation in almost every class. Dictation is really pulling teeth. They hate dictation. It’s more difficult for students to do melodic dictation.

7) **When you test them do you play examples on the piano and students must identify them?**

Yes.

8) **Please describe the order/sequence in which the different elements are introduced in the course and the rationale for the sequence. Are your courses harmony-centered or rhythm-centered?**
Harmony. Not necessarily that it should be but it is. In jazz education there should be a really strong rhythmic element. Everybody has to play piano and everybody should be playing drums. Everybody should be doing some kind of heavy-duty rhythmic training.

9) What do you consider to be the most challenging element for the students in terms of jazz ear training and how do you teach/reinforce that particular element in your course(s)?

Melodic dictation.

10) Is there a keyboard element (students playing) included in your jazz ear-training course(s), and if so, what proficiencies must the students demonstrate?

No, because they do that in improv and they do that in piano. In the ideal course they would do it all at the same time. They would be sitting at the piano getting everything.

11) Is there any required listening as part of your course(s), and if so, please describe?

When I have time I bring in some real-world examples of things. If I had listening assignments I don’t know if everybody would do them. I don’t know how much time I should expect people to spend on jazz ear training. I assume they’re listening but I certainly refer them to certain things. If we’re doing the chords of major and we get to Phrygian or Lydian I’ll bring in some recorded examples. Testing and playing examples eats up half of your teaching time just like that.

12) Are students required to sight-sing music during the course, and if so, what system (solfegio, numbers, etc.) is used and why?

We’ve been singing as an exercise but as a test its tough because I’m not a singer. Sometimes you don’t know where to draw the line. In my heart of hearts I know ear training should really involve a lot of singing, so I try to do more and more of it. I use numbers if we sing but there hasn’t been any sight-singing. It would probably be a good idea.

13) Do you use improvisation in your jazz ear-training course(s) and if so, how do you incorporate it? Is it instrument specific or are students required to vocally improvise?

No, because that’s improv class. We might talk about it.

14) Is any diagnostic exam given at the beginning of the course(s) to ascertain the general knowledge level of the class?
Yes. This semester I split the students up but I don’t know if that’s the best idea. When you put all the people that are struggling together the expectations get lowered really quickly.

15) **What are the competencies the students must demonstrate when they complete your course(s)?**

Everything we cover. I would like them to hear the chord qualities and to understand the building blocks of the progressions. Harmonically, to be able to hear a typical tune (something simple to intermediate) and understand what’s going on. Understand that it’s going to IV and the relative minor and once you get to IV, how you are going to get back. In a way it becomes teaching theory more than ear training but you have to teach them what it is before you can teach them to hear it. It’s really hard to separate the two unless you do really absolute things like what’s this interval or what’s this dictation. That’s what they did in the legit theory and it doesn’t seem to prepare them as much for jazz theory. Students are not prepared at all for jazz theory after the sequence of classical theory courses.

16) **Do you have additional comments and recommendations regarding the implementation of jazz ear training courses?**

The real challenge is that there are so many vastly different levels of preparation and experience. If you don’t test in ear training they don’t do it. I try to have a little test every Wednesday. Like a 15 minute test. There’s always going to be some kind of test on Wednesday. The problem with classical ear training at UM is that grad students always teach it. In a lot of cases they don’t push hard enough. Grad students don’t like to fail people. If you’re real serious about it you do have people who specialize in this. At USC Thom Mason is a jazz educator. Nobody knows him for what he played but he’s known for what he does and he probably does it very well. One of those things is teach harmony and ear-training and has a system and takes everyone through it. At Berklee they have a whole ear-training faculty. They have at least four people whose full-time, tenured job is to teach ear training. The guy who’s in charge of ear training is a professional ear-training guy and I’ve met him and he is amazing. They have an entire curriculum and they are really serious about it. He’s a great singer and he really has everybody doing a lot of singing. He uses numbers. If you can find a faculty member who wants to be that kind of person I think it’s important and I think it’s good. I think the way we’re doing it here (at UM) is not the best way to do it. Jazz theory, harmony, keyboard, and ear training should all be integrated, and it should start at the beginning (very first semester). Invariably you get bogged-down by the lower people in the class unless you’re teaching one-on-one. The art of teaching is trying to work with individuals of different levels within a group.
1) **How would you justify the inclusion of a jazz ear-training course in a jazz curriculum?**

Ear Training that is designed for jazz curriculum or for a broad-based contemporary music curriculum is justified due to its centrality of importance for a music student. All things musical, whether created by a musician or heard, rely on a broad-based ear-training curriculum. If a curriculum is centered largely around jazz, then it makes sense to include more jazz-centric materials; but in general, the elements in ear-training that are required of all students should form the basic structure for any curriculum, jazz-based or not.

2) **How many hours a week does the course (courses) meet? Do you consider that a sufficient amount?**

We offer four core ear-training classes. All students must take these courses. Ear Training 1 and 2 meet three hours a week; Ear Training 3 and 4 meet two hours. In my view, Ear Training 3 and 4 should meet three hours a week.

3) **Do you use accompanying textbooks or computer software with your jazz ear-training course(s), and if so, which ones?**

We use department-written textbooks for all of our core classes. We have designed two ear-training Web sites, which focus on dictation. Both faculty-written exercises and real music recordings are included in the materials on the Web.

4) **Are there different sections of jazz ear-training for vocalists and instrumentalists? If so, in what ways do they differ?**

No.

5) **What are the major elements discussed in the jazz ear training classes you teach? Is there any one content area that you emphasize more than other areas? Why?**

All core ear-training courses include, in the order presented, a discussion of how to practice, a discussion of conducting patterns that will be used in the book, rhythmic exercises, sol-fa exercises, melodic exercises, including two-, three-, and four-part singing, and harmonic exercises.

6) **Please describe the order/sequence in which the different elements are introduced in the course and the rationale for the sequence. Are your courses harmony-centered or rhythm-centered?**
The sequence in which the curriculum progresses is clearly outlined in the four syllabi of the classes. Please refer to them online.

7) **What do you consider to be the most challenging element for the students in terms of jazz ear-training and how do you teach/reinforce that particular element in your course(s)?**

The first, and perhaps the most pervasive, difficulty for entering students is their conception of rhythm. Without mastery of rhythm, students are unable to successfully pursue the elements of the rest of the book.

8) **Is there a keyboard element (students playing) included in your jazz ear-training course(s), and if so, what proficiencies must the students demonstrate?**

No.

9) **Is there any required listening as part of your course(s), and if so, please describe?**

Students are encouraged and often required to consult our two ear-training Web sites. In particular, our Real Music Web site is a valuable tool to introduce students to diverse kinds of music. Many teachers also include listening in and out of class.

10) **Are students required to sight-sing music during the course, and if so, what system (solfegio, numbers, etc.) is used and why?**

Students are required to sight-sing music throughout the core courses. The system we use is Movable-Do solfege. We find Movable-Do most effective when dealing with contemporary music. We find it allows students to hear the function of sound in a generic way, which they then can apply to a particular key or keys.

11) **Do you use improvisation in your jazz ear-training course(s) and if so, how do you incorporate it? Is it instrument specific or are students required to vocally improvise?**

Improvisation is not required in our core ear-training courses. However, students are encouraged to a-stylistically improvise using the particular mode, scale, or tonality that is the current subject of study. Visualization of the keyboard while solfeging is also encouraged.

12) **Is any diagnostic exam given at the beginning of the course(s) to ascertain the general knowledge level of the class?**

Right before the semester begins, all 850-900 of our entering students are given a
diagnostic test for purposes of placement. Teachers are also asked to take note of the individual abilities of students in their classes, so that adjustments, whether up or down, can be made within the first couple of weeks. Based on the teacher’s recommendation, a student is then expected to move up to the next level or move down to a lower level.

13) **What are the competencies the students must demonstrate when they complete your course(s)?**

Competencies are explicated in the four syllabi that I referred you to earlier in this survey. Please refer to them.

14) **Do you have additional comments and recommendations regarding the implementation of jazz ear training courses?**

No.
1) How would you justify the inclusion of a jazz ear-training course in a jazz curriculum?

Jazz musicians need a different kind of ear training than their classical counterparts, one which trains student improvisers to hear and recognize chord progressions, chord progression formulas, chord qualities etc., and develops the ability to read and interpret jazz rhythms and articulations that they might encounter will performing in various kinds of jazz ensembles from big bands to combos to simply playing and interpreting lead sheets correctly.

2) How many hours a week does the course (courses) meet? Do you consider that a sufficient amount?

At USC the course meets 2 hours per week. This is less than I like, but has proven sufficient. Three hours would be better.

3) Do you use accompanying textbooks or computer software with your jazz ear-training course(s), and if so, which ones?

We currently use my textbook, *The Art of Hearing* (Hal Leonard - 1997), but we will be moving to my new book, *Jazz Ears* (Hal Leonard - 2007) next fall. Most of our students own their own jazz fake books. We also use computer software, *Band In a Box* and an excellent ear-training program called *EarMaster 5*, which are wonderful, but only available for PC at present. Many of my MAC students have PC conversion software that allows them to run *EarMaster 5*. For the rest, we have the program on our computer labs on campus.

4) Are there different sections of jazz ear-training for vocalists and instrumentalists? If so, in what ways do they differ?

No. In most cases, instrumentalists have the same sight-reading, conducting and singing issues as vocalists. In fact, without their instruments in hand, they are often not as good at sight singing as the vocalists because they are embarrassed by their lack of vocal control.

5) What are the major elements discussed in the jazz ear training classes you teach? Is there any one content area that you emphasize more than other areas? Why?

Students should be able to sing the root movements of chord progressions, outline (arpeggiate) the changes and work up singable solo-solutions to the progressions. Students should be able to read and hear instrumental jazz melodies and/or solos and displace awkward intervals when needed to make the music singable.
Students should be able to conduct while they sing melodic or rhythmic exercises using both solfege and rhythmic syllables. Students should be able to recognize chord qualities and common chord formulas in dictation. Students should be proficient enough at dictation to take down 4-bar phrases of melodic or rhythmic melodies or solos with difficulty to 16th notes.

6) Please describe the order/sequence in which the different elements are introduced in the course and the rationale for the sequence.

We begin by learning to use rhythmic syllables to hear and recognize common jazz rhythms, durations and articulations as they occur in swing music. Concurrently we introduce moveable DO solfege to learn to hear intervals and to internalize the common chord/scales used for soloing. We move on to learning to sing and hear chord progressions starting with root movements and easily remembered melodic patterns that can be used to arpeggiate progressions. This takes up most of the first semester as we study various examples of easy II-V-I tunes, Rhythm Changes and blues progressions in major. The second semester repeats the process starting with rhythmic problems associated with music in a straight-8th feel. We also look at big band articulations in parts and scores before moving on to Post-Bop and Fusion music, and music in minor keys and modes. The rationale is that music always begins with rhythm. We then use it to learn about a substantial body of “common practice” jazz repertory. We build on what was covered the first semester during the second semester by recycling our steps using straight-8th music.

Are your courses harmony-centered or rhythm-centered?
The first semester is more rhythmically centered, the second more harmonic.

7) What do you consider to be the most challenging element for the students in terms of jazz ear-training and how do you teach/reinforce that particular element in your course(s)?

Students tend to fight learning moveable DO and rhythmic syllables until they are personally convinced by the weight of evidence, that knowing them speeds up their ability to internalize music without having to resort to playing an instrument.

8) Is there a keyboard element (students playing) included in your jazz ear-training course(s), and if so, what proficiencies must the students demonstrate?

USC offers two year long keyboard courses, one for those who have no keyboard skills at all and the other, a jazz keyboard course that focuses on how to interpret lead sheets. In light of that, I’ve gradually eliminated keyboard requirements for the ET class although I encourage everyone to use what they are covering in keyboard class to help their hearing.
9) **Is there any required listening as part of your course(s), and if so, please describe?**

I often make recordings of the music being studied available online. If we are studying Tune Up, for example, a Band In a Box version of the progression and the Miles solo recording will be online. When we get to looking at big band scores, I put the tracks online and ask the students to find the composite rhythms produced as the brass and reeds interweave their parts together.

10) **Are students required to sight-sing music during the course, and if so, what system (solfege, numbers, etc.) is used and why?**

Yes sight singing goes on a lot as we tend to read through something at the beginning of every class. I use moveable DO. Numbers are a problem because when progressions change keys, the third may be major or minor in the new key. Numbers don’t identify enough information for me. It’s not unlike fixed DO where DO is always C, but it’s not always the tonic of the key. After the difficult intervals of a melody have been worked out, I move to rhythmic syllables that include jazz articulations and durations. For my students, solfege is a note-checking tool, not an end in itself. Most students will not use solfege after they leave the course unless they get into trouble because of a high degree of chromaticism in either the solo or the changes to a tune.

11) **Do you use improvisation in your jazz ear-training course(s) and if so, how do you incorporate it? Is it instrument specific or are students required to vocally improvise?**

I have students make up melodies to rhythmic exercises while conducting or singing an example of a mode or chord/scale while using solfege. I also have them create examples of various kinds of chord/scales using solfege. For example: to demonstrate a V7#11 chord/scale a student might sing SO TI DI RE FA LA SO FA MI DO____.

12) **Is any diagnostic exam given at the beginning of the course(s) to ascertain the general knowledge level of the class?**

I give students final exam materials as a diagnostic tool at the beginning of the course. Students who pass with a 75% or higher may pass out of the class if they choose. Most get around 40%. Students with perfect pitch often remain in the class because pitch accuracy is only part of the whole picture. The test also allows me to ascertain the general knowledge level of the class. By the way, if students complain that they really aren’t learning anything, I have them come to my office, retest them on the spot and then show them what their diagnostic exam score was. They’re usually both shocked and pleased at the same time.
13) **What are the competencies the students must demonstrate when they complete your course(s)?**

They should be able to look at the music they plan to perform and hear most of it in their heads without an external source. This doesn’t mean they must sight read the music flawlessly; it means that, given a short amount of time, they can work out almost everything they need or want to know about the music without playing it. If they make mistakes, they should be able to recognize that they got off somewhere, locate where they made their error(s) and have tools at their disposal for fixing the problem(s).

14) **Do you have additional comments and recommendations regarding the implementation of jazz ear training courses?**

I’ve started having the students send me mp3 files of them working on tunes. For example, currently we’re working on Blue Bossa. They will send me an audio file of themselves singing the melody, the chord progression using Roman Numerals, an arpeggiation of the changes using simple vocal patterns (like RE FA LA DO TI SO FA RA DO MI SO TI DO as 8th notes for a II-V-I formula in Major) and finally, their own vocal solution to the changes (something of a worked out vocal scat that defines what’s happening in the progression.) These are done without accompaniment other than the students snapping their fingers to keep time. The students seem to like doing this and appreciate the personal attention they get when I point out what I liked or didn’t like about their track.