

A PEDAGOGICAL GUIDE FOR TEACHING DIATONIC MODALITY
IN THE COLLEGE MUSIC THEORY CURRICULUM

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ABSTRACT

Music theory plays a central role in the education of every college music major and minor. The typical undergraduate music theory core curriculum consists of a four- or five-semester sequence of courses. As a result of the emphasis on traditional tonal harmony in Western music education, these core courses concentrate almost exclusively on the major/minor scalar system while marginalizing other types of scales such as diatonic modes. Common undergraduate theory textbooks that include the introduction of modality often only list the basic modal and scalar structures without offering further analysis and application; many other textbooks do not mention the term at all. This project addresses this curricular deficiency via the development of a sequential instructional program on diatonic modality for the undergraduate music theory curriculum. Applying a comprehensive musicianship approach, the project facilitates instruction that makes conceptual connections through listening, analysis, composition, and performance. The final product includes:

- A firm and broad pedagogical foundation for teaching diatonic modality in the undergraduate music theory curriculum—a research- and learning-theory-based foundation that supports the construction of the detailed scope and sequence. Three instructional principles in particular provide the foundation for the curriculum: sound before symbol, spiral learning, and comprehensive musicianship.
- A detailed curriculum guide for teaching diatonic modality in the undergraduate music theory core curriculum with a specific focus on the first two years of theory study: fundamentals, diatonic harmony, chromatic harmony, and 20th-century music theory. This includes specific pedagogical recommendations, a comprehensive scope and sequence delineated in three curriculum mapping tables, and thorough sequenced instructional guidelines for each step in

the teaching-learning process. The 24 written theory and aural skills plans were specifically designed to be integrated throughout the typical four-semester curriculum. All of the plans are strongly activity-based and built around an extensive core of modal repertoire from all style periods including contemporary pop and jazz, emphasizing the authentic connection with music throughout history.

If applied effectively, the innovative curriculum in this guide has the potential to not only significantly improve the teaching and learning of diatonic modality in undergraduate music theory but also to serve as a model that may help transform the overall approach to collegiate music theory instruction.

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CHAPTER ONE

INTRODUCTION

Music theory plays a central role in the education of every college music major and minor. As part of a diverse and rich discipline, theory courses in general aim “to teach data and terminology” (Rogers, 2004, p. 5) and “to teach students to think in music and to read, write, and perform music with understanding” (Marvin, 2012, p. 255). The typical undergraduate music theory core curriculum is a four- or five-semester sequence of courses. This sequence begins with a review of fundamentals that is typically followed by the introduction of tonal harmony, melodic analysis, counterpoint, and eventually orchestration/arranging. The fundamentals—including scales, intervals, key signatures, and triads—are “most important for establishing an essential background” that leads to the more advanced music theory studies (Rogers, 2004, p. 4). As part of this foundational level of college music theory study, scales and their related key signatures need to be learned and mastered. A very common pedagogical approach at this early stage involves training new music majors to first identify the tonality of a piece by examining the key signature and then deciding between major and the relative minor without considering other possibilities such as diatonic modality. While the musical world exhibits a wide variety of scales besides major and minor applied in compositions—most notably in folk and sacred music—these other possibilities are rarely considered or addressed in the foundational theory curriculum. As a result of the emphasis on traditional tonal harmony in Western music education, most college theory courses concentrate almost exclusively on the major/minor scalar system while marginalizing other types of scales such as diatonic modes. Are those other types of scales less important than major/minor ones? From a contemporary perspective, the answer is clearly “no”

because these diverse scales contribute significantly to the variety and multi-dimensionality of music. Why, then, do we focus on the major/minor tonality as the priority when identifying the tonal center of a piece? Why do we tend to marginalize other types of scales in general? Should we be integrating a broader view of scales and modality into the undergraduate theory curriculum and, if so, how would we best accomplish this objective? This dissertation addresses these questions by concentrating on one important subset of these scales—diatonic modes.

The Term *Mode* in Music History

In Western music theory, mode has three main applications: “the relationship between the note values *longa* and *brevis* in late medieval notation; interval, in early medieval theory; and, most significantly, a concept involving scale type and melody type” (Powers et al., 2001, para. 1). Since the 20th century, the use of the term mode has been broadened to designate classes of melodies in musicological parlance. Despite these diverse applications, the most common contemporary use of the term mode in Western music theory is as a concept of scale type; this is the definition and focus in this dissertation.

As an indigenous term of scale type in Western music theory, mode is applicable to three separate and successive historical stages: to Gregorian chant, to Renaissance polyphony, and to tonal harmonic music of the common practice period (Powers et al., 2001). Western modal theory has a long history of evolution: derived from the eight church modes of the Medieval period, extended to 12 modes in the Renaissance, expanded to the 24 major/minor keys of the tonal-harmonic era, and finally condensed to the seven diatonic or white-key modes in the 20th century. Consisting of seven scales related to major/minor keys, the modern Western modes use the same set of notes as the major scale, starting from each of its seven scale degrees in turn as a

tonic and thereby resulting in different sequences of whole and half steps. The most common names in use to designate the seven diatonic modes are Dorian, Phrygian, Lydian, Mixolydian, Aeolian, Locrian, and Ionian.

Mode possesses a profound significance in both historical context and compositional practice. Before the Common Practice Period (i.e., the tonal-harmonic era, roughly 1650 – 1900), mode, as a means of classification and compositional tool, played the central role in Medieval and Renaissance music. As a result of the universal adoption of major-minor tonality in the beginning of the 18th century, modal elements are rarely found in the music of the Classical style. In the 19th century, the use of mode was invoked for purposes of antique, ecclesiastic, or rustic color (Carver, 2005). The revival of modes by 19th-century composers resulted in a great number of compositions based on modality, especially the traditional folk and national music. The continued exploration and rediscovery of mode and modality has become one of the major trends in the music world since the beginning of the 20th century as music experienced the explosion of diversity to an unprecedented extent. The diatonic modes were used frequently by contemporary composers who sought to imitate early music or folk song; these composers include Bartok, Debussy, Vaughan Williams, Sibelius, and Carl Nielsen (Simms, 1996). The significance of mode and modality in Western music theory is clearly reflected in both the longevity of its historical development and the prosperity of the modal compositions and related theory treatises.

Statement of The Problem

As a pianist and an enthusiast of music theory, I have been interested in modal theory and compositions based on different modalities since the beginning of my graduate study in the United States. While I enjoyed learning about Chinese traditional modes during my

undergraduate study in China, I did not explore Western modality in detail until my first master's theory course at Kent State University. In my first-year doctoral study at Ball State University, I took Jody Nagel's Analytical Techniques class and studied his theoretical ideas and compositions. One of the topics we discussed in that class was Nagel's own writing, *On Modes*. In this paper, Nagel illustrated in detail the distinct structure of seven diatonic modes by emphasizing the different placements of the tritone interval in each mode. Based on his theoretical idea of modality, Nagel later composed *The Well-Tempered Mode for Solo Piano*—seven collections of 91 piano pieces in total that represented his exploration of the seven modalities of the ancient Greeks in all twelve chromatic keys. As a piano performance primary, I was intrigued by his interpretation of modality and impressed by his diligent compositional practice; this led to discussions about my lecture recital and possible topics related to modal theory. Dr. Nagel encouraged me to consider the final pieces of each collection as a potential topic. He then recompiled these final pieces and created a new collection titled *Seven "Thirteens"* for my further study. My lecture recital, presented in May 2017, was a theoretical analysis and premiere performance of the *Seven "Thirteens"* from *The Well-Tempered Mode*. In the month following my lecture recital, I recorded these seven pieces in Sursa Performance Hall with the assistance of a professional recording engineer. This recording is the premiere professional recording of Nagel's *Seven "Thirteens"* collection.

During my previous years as a graduate student, I had witnessed the ineffective and/or neglected teaching of modal theory and the consequential results in music theory and aural skills classes, group piano classes, choral rehearsals, and studio settings. Surprisingly and unfortunately, some native graduate students struggled with identifying and differentiating modal scales. I began to recognize the significance of the conceptual and practical shortcomings related

to the teaching of modality and modal scales. In typical Western music education, the music of the traditional tonal system maintains its greatest priority and significance. The fundamental principles of tonality and major/minor scales, functional harmony, and traditional formal analysis continue to dominate current Western music theory study. Students from elementary school to college have been taught much less frequently the music outside of the Common Practice Era; music of the Middle Ages, Renaissance, and 20th century is typically reserved for special studies at a more advanced stage. As a result, many crucial concepts—considered as marginal knowledge—have been underemphasized or even neglected in the general music theory curriculum. One specific example from this category—modality and modal scales, the principal counterpart of tonality and major/minor scales—remains unfamiliar to the majority of students.

Modality, while possessing profound significance in both historical context and compositional practice, does not appear to receive sufficient attention in current music theory study, despite the fact that a large amount of the 20th-century repertoire is based on modal and scalar systems (Susanni & Antokoletz, 2012). Common undergraduate theory textbooks that include the introduction of modality often only list the basic modal and scalar structures without offering further analysis and application; many other textbooks do not mention the term at all. Multiple factors contribute to this, including the lack of a comprehensive and practical approach to analyzing 20th-century modal compositions and the lack of a well-designed pedagogical approach to teaching modal theory. Most importantly, the disconnect between and isolation of academic learning and practical application as a result of the debate among contradictory teaching philosophies and approaches hinder the young musicians from achieving a full comprehension of modality and modal scales. It is not unusual for separate music courses

representing various sub-areas to concentrate on content specific to the sub-area and ignore the importance of curricular connections and the concept of comprehensive musicianship.

The unfamiliarity with and lack of understanding about modality and modal scales exert significantly negative impacts on current music education. In academic study, the vast repertoire of modal and scalar-based Medieval and Renaissance church music, folk music, and exotic music deriving from non-Western cultures remains unknown or indecipherable for a majority of music students and prospective music teachers. In performance practice, despite the increasing interests of exploring and applying scalar systems other than major-minor by contemporary composers, it seems that compositions based on modality appear much less frequently than traditional major/minor compositions in concert programs. As a result, the ears of both performers and audience members remain unfamiliar with and insensitive to those distinctive modal sounds. On the other hand, common choral repertoire often includes music of the Renaissance that is modal (e.g., psalm, chant, etc.). The ensemble members' unfamiliarity with the basic modal scales, however, can significantly interfere with the efficiency and effectiveness of the rehearsal and eventual performances. If students do not learn the differences in scalar structures among major/minor and other modes in their theory classes, if they do not have enough opportunities to listen to and sing different modes in their aural skill class, they will have difficulty singing music based on modal scales in choir. The choral conductor will likely need to spend precious rehearsal time working on intonation problems rather than addressing higher-level issues such as musicality, expressiveness, and tone quality.

While preparing my lecture recital in the spring of 2017, I had the complementary opportunity to intern with Dr. Nagel in one of the fourth-semester undergraduate music theory classes at Ball State University that focus on 20th-century post-tonal theory. By now fascinated

with Western modes and interested in music theory pedagogy, I wondered how modes were taught in the Ball State undergraduate music theory core curriculum. The post-tonal theory course introduced modes briefly and only as types of scales without putting them into context (e.g., analyzing the related compositions). The course content mainly concentrated on pitch-class set theory and twelve-tone theory. Surprised at the limited focus on modes in this specific course, I investigated further and discovered that diatonic modality received minimal attention throughout the undergraduate music theory core curriculum at Ball State University. Considering the fact that diatonic modality is one of the more important compositional elements and fundamental concepts in contemporary Western music theory, I came to believe intensely that modal theory should be taught more thoroughly and comprehensively in the collegiate setting.

Statement of Purpose

The purpose of this project was to develop a sequential instructional program on diatonic modality for the undergraduate music theory curriculum. Applying a comprehensive musicianship approach, the project will facilitate instruction that makes conceptual connections through listening, analysis, composition, and performance. The final product includes:

- A firm and broad pedagogical foundation for teaching diatonic modality in the undergraduate music theory curriculum—a research- and learning-theory-based foundation that supports the construction of the detailed scope and sequence.
- A detailed curriculum guide for teaching diatonic modality in the undergraduate music theory core curriculum with a specific focus on the first two years of theory study: fundamentals, diatonic harmony, chromatic harmony, and 20th-century music theory. This includes specific pedagogical recommendations, a comprehensive scope and sequence delineated in three

curriculum mapping tables, and thorough sequenced instructional guidelines for each step in the teaching-learning process.

Significance of The Project

Despite the fact that a large amount of the 20th-century repertoire is based on modal and scalar systems, diatonic modality receives very little attention in the undergraduate music theory curriculum. This project seeks to rectify this pedagogical paradox by developing a concise sequence of instruction that integrates conceptual content with practical and authentic musical examples. Because the curriculum is based in current best-practice research and learning theory, this innovative curriculum has the potential to not only significantly improve the teaching and learning of diatonic modality in undergraduate music theory but also to serve as a model that may help transform the overall approach to collegiate music theory instruction.

CHAPTER TWO

REVIEW OF LITERATURE

Music theory is “an area of study that tends to focus on musical materials per se.... More broadly, in the United States, music theory refers to an academic discipline with a dual focus on research and pedagogy” (Berry & Solkema, 2014, para. 1). As defined by Berry and Solkema, research and pedagogy are equally important components of the broad discipline of music theory in the United States. The focus on pedagogy, however, is a more recent development in the field. Publications related to music theory have traditionally focused on the research branch, featuring detailed theoretical discussions and analyses of compositional technique. This is most certainly the case for a plethora of articles focusing on 20th-century diatonic modality as well as for the only two books located that focus on this topic: *The Diatonic Modes in Modern Music* (Vincent, 1951; 2nd edition, 1974) and *Music and Twentieth-Century Tonality* (Susanni & Antokoletz, 2012). While the research focus is still a dominant trend—as a review of recent issues of *The Journal of Music Theory*, *Music Theory Online*, and *Music Theory Spectrum* reveals—the relatively recent premiere of *The Journal of Music Theory Pedagogy* in 1987 provided an important outlet for discussions of effective teaching approaches. This dissertation provides an important addition to this still-emerging pedagogical branch. This literature review, therefore, focuses primarily on an overview of current music theory curriculum and pedagogy at the college level with a specific focus on the integration of diatonic modality.

Music Theory Curriculum and Pedagogy

Music theory coursework is foundational to any college degree in music. The National Association of Schools of Music (NASM) serves as the most recognized accrediting body for collegiate music programs in the United States. “An organization of schools, conservatories, colleges, and universities with approximately 650 accredited institutional members, NASM establishes national standards for undergraduate and graduate degrees and other credentials for music and music-related disciplines” (“NASM,” n.d., para. 1). The *NASM Handbook 2017-18* outlines the common body of knowledge and skills required for all music majors pursuing professional baccalaureate degrees. This includes five primary areas: performance, musicianship skills and analysis, composition/improvisation, history and repertory, and synthesis (NASM, 2017). Among these five areas, two are clearly related to the music theory curriculum: musicianship skills and analysis, and composition/improvisation. As elaborated in the *NASM Handbook*, all undergraduate music major students must acquire:

- a. 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.
- b. Sufficient understanding of and capability with musical forms, processes, and structures to use this knowledge and skill in compositional, performance, analytical, scholarly, and pedagogical applications according to the requisites of their specializations.
- c. The ability to place music in historical, cultural, and stylistic contexts. A rudimentary capacity to create original or derivative music....

A basic understanding of how to work freely and cogently with musical materials in various composition-based activities. (p. 99)

The standards in the *NASM Handbook* are considered as general and non-specific guidelines for its accredited institutional members. Because each school has a different scope and emphasis, specifics of the music theory curricula may differ from institution to institution. While

differences certainly exist, the overall commonality of the undergraduate theory core is very evident. This commonality becomes very apparent by comparing a variety of theory curricula from both NASM-accredited and non-NASM-accredited schools of music.

The Common Music Theory Curriculum

To reflect appropriate authority and diversity, it seemed most prudent to examine and compare the music theory curricula of schools of music represented by the current members of the *Journal of Music Theory Pedagogy* (JMTP) editorial board. Established in 1987, JMTP is an annual peer-reviewed academic journal that “focuses on aspects of the teaching and learning of music theory at undergraduate and graduate levels” (Batt, 1990, p. 164). Fifteen schools (conservatories, schools of music at large universities, and music departments in small colleges) are represented on the editorial board: The Juilliard School, Eastman School of Music, Ohio University, Ithaca College, Oberlin College Conservatory, Cincinnati Conservatory, Michigan State University, University of Colorado, University of Louisville, Aaron Copland School, University of Texas at Austin, CUNY-Baruch College, Rider University, Appalachian State University, and University of Massachusetts. Four schools from this list are not accredited by NASM; however, they have similar music curricula to the accredited ones. Tables 2.1 and 2.2 display the detailed results of this examination.

As displayed in Table 2.1, the common undergraduate music theory core curriculum in the United States consists of a four- to six-semester sequence of courses. Most of the schools offer “Fundamentals” as a separate pre-college-level course to freshmen who do not achieve a passing score on a music theory placement test. The fundamentals course usually does not count as part of the core curriculum; as noted by Marvin (2012), however, many schools “commented

on the increased need for remediation in their incoming freshman theory classes.... many students still need the class” (p. 261).

Table 2.1

The Music Theory Curriculum at Selected Institutions

<i>Institution</i>	<i>Region and State</i>	<i>NASM accredited</i>	<i>Music Theory Curriculum (semesters/credits)</i>
The Juilliard School	6 (NY)	No	4+1 semesters (23 credits)
Eastman School of Music	6 (NY)	Yes	4+1 semesters (20 credits)
Ohio University	5 (OH)	Yes	1+4 semesters (20 credits)
Ithaca College	6 (NY)	Yes	4+2 semesters (17 credits)
Oberlin College Conservatory	5 (OH)	No	4 semesters (24 credits)
Cincinnati Conservatory	5 (OH)	Yes	4 semesters (16 credits)
Michigan State University	5 (MI)	Yes	4+1 semesters (18 credits)
University of Colorado	3 (CO)	Yes	4+1 semesters (14 credits)
University of Louisville	8 (KY)	Yes	4+1 semesters (18 credits)
Aaron Copeland School	6 (NY)	No	5+2 semesters (29 credits)
University of Texas at Austin	9 (TX)	Yes	4 semesters (16 credits)
CUNY-Baruch College	6 (NY)	No	2 semesters (6 credits) *
Rider University	6 (NJ)	Yes	4+2 semesters (21 credits)
Appalachian State University	7 (NC)	Yes	4+1 semesters (16 credits)
University of Massachusetts (Lowell)	6 (MA)	Yes	4+1 semesters (19 credits)
Ball State University	5 (IN)	Yes	4+2 semesters (16 credits)

Note:

4+1: Four-semester sequence + one advanced course (Post-tonal/Form & Analysis/Arranging).

1+4: Fundamental + Four-semester sequence.

4+2: Four-semester sequence + two advanced courses (Form & Analysis/Post-tonal theory/Arranging).

5+2: Five-semester sequence + two advanced courses (Form & Analysis/Post-tonal).

*CUNY-Baruch College has a relatively smaller music program. The music department consists of seven music faculty members, all of them with expertise in either in music history or music theory & composition. The department offers a music major and a management of musical enterprises specialization. Students with a major in music are required to take 30-credits of music courses (10 courses). According to the course titles and descriptions, only two “harmony” courses are directly related to music theory study; the remaining eight courses are either history-focus or a mixture of history and theory.

Table 2.2***The Typical Undergraduate Music Theory Core Curriculum***

<i>Semester</i>	<i>Course Name</i>	<i>Course Content</i>
0	Fundamentals	Pass placement test or prerequisite remediation
1	Music Theory 1 & Aural Skills 1	Introduction to the theory and analysis of tonal music. Review of fundamentals, introduce species counterpoint and diatonic harmony.
2	Music Theory 2 & Aural Skills 2	Continued study of tonal harmony and voice leading, (tonicization and modulation). Musical forms: binary, ternary, and variation forms.
3	Music Theory 3 & Aural Skills 3	Studies of compositional styles and analysis. Large-scale forms and principles of chromatic harmony.
4	Music Theory 4 & Aural Skills 4	The breakdown of traditional tonality around 1900 and the ensuing rise of new tonalities.
5	Form Analysis	Basic principles of the forms of the common practice period.
	Post-tonal Theory	A study of analytical techniques developed in the 20 th -century and their application to music of all genres.
6	Arranging	Scoring for choral ensembles and/or symphonic band, wind ensemble, orchestra, and other related groups.

As shown in Table 2.2, the typical college music theory core begins with “Music Theory 1 & Aural Skills 1” and ends with “Music Theory 4 & Aural Skills 4.” Some schools require one or two advanced music theory courses after the basic four-semester sequence. Based on the course titles (some schools use explanatory and specific titles related to course content, such as Diatonic Harmony) and course descriptions, undergraduate music majors typically study three semesters of tonal harmony (diatonic and chromatic) with a focus on part-writing and analysis of common-practice period repertoire, followed by one-semester of post-tonal theory. One or two extra required advanced theory courses may include “Form and Analysis,” “Choral/Band/Orchestra Arranging,” or “Post-tonal Theory and Analysis.” Overall, the principal concentration of the undergraduate music theory core curriculum is on common-practice tonal harmony, which is based on the major/minor scalar system. Other scales, as a result, are typically marginalized or ignored in the sequential music theory core curriculum.

Music Theory Textbooks and Diatonic Modality

The textbook is the major component of teaching and learning that directly influences course content. Cathey (2015) observes that “commercially-available textbooks and companion workbooks are the most common pedagogical tools” (p. 11) used in the music theory classroom. As a result, the textbook(s) chosen by the music theory department will typically determine whether or how in-depth diatonic modality is addressed. A careful review of the contents of commonly used music theory textbooks, therefore, provides significant insight into the relative inclusion of this topic in collegiate music theory programs across the nation. A composite list of commonly used textbooks was developed by referencing the textbook bibliography in Rogers’ *Teaching Approaches in Music Theory* (2004), the course material included in Theory Pedagogy Seminar at Ball State University, current research/survey of commonly-used music theory textbooks from JMTP articles, and several sample music theory syllabi that list the required textbook. Table 2.3 presents the results of this examination, including details related to the number of pages and location of any content related to diatonic modality. The two columns on the right of the table reflect the fact that this content was potentially found in one of two sections: in fundamentals near the beginning of the texts or in a section focusing on 20th-century approaches.

Table 2.3

Diatonic Modality in Primary Undergraduate Theory Textbooks

Diatonic Modality in Primary Undergraduate Music Theory Textbooks					
Title	Authors	First Edition	Latest Edition	Diatonic Modality in Fundamentals	Diatonic Modality in 20 th Century
<i>Harmony and Voice Leading</i>	Aldwell, Schachter, and Cadwallader	1978	2019 (5 th)	<i>Key, Scales, and Modes</i> : 1 page	Not applicable
<i>Techniques and Materials of Music: From the Common Practice Period Through the Twentieth Century</i>	Benjamin, Horvit, Nelson, and Koozin	1978	2015 (7 th)	Not addressed	<i>The Diatonic Modes</i> : 3 pages
<i>Music in Theory and Practice (2 volumes)</i>	Benward and Saker	1977	2014 (9 th)	Vol 1: <i>Scales, Tonality, Key, and Modes</i> ; 3 pages Vol 2: <i>Late Renaissance Polyphony</i> ; 2 pages	<i>Dual Modality</i> : One example
<i>The Musician's Guide to Theory and Analysis</i>	Clendinning, Piper, and Marvin	2005	2016 (3 rd)	<i>Minor Keys and Diatonic Modes</i> ; 6 pages	<i>Modes, Scales, and Sets</i> : 3 pages
<i>Harmonic Practice in Tonal Music</i>	Gauldin	1997	2004 (2 nd)	(Appendix 2: <i>The Diatonic Modes and Other Scales</i> ; 4 pages)	Not applicable
<i>Tonal Harmony</i>	Kostka, Payne, and Almen	1984	2017 (8 th)	Not addressed	<i>Scale Materials</i> ; 2 pages
<i>The Complete Musician: An Integrated Approach to Theory, Analysis, and Listening</i>	Laitz	2004	2016 (4 th)	Not addressed	Not applicable
<i>Theory Essentials: An Integrated Approach to Harmony, Ear Training, and Keyboard Skills</i>	Mayfield	2003	2013 (2 nd)	<i>Major Scales and Key Signatures</i> : 1 page	Note: Textbook integrates aural skills. <i>Introduction to Modes</i> ; 16 pages (including 8 of musical examples)
<i>Harmony in Context</i>	Roig-Francoli	2003	2011 (2 nd)	<i>Tonality, Scales, and Keys</i> ; 3 pages	Not applicable
<i>The Practice of Harmony</i>	Spencer and Bennett	1983	2017 (7 th)	Not addressed	<i>Modal Harmony</i> ; 5 pages
<i>Harmonic Materials in Tonal Music: A Programmed Course, Parts 1 and 2</i>	Steinke	1968	2009 (10 th)	Not addressed	Not applicable
<i>Theory for Today's Musician</i>	Turek and McCarthy	2006	2014 (2 nd)	<i>Modes, Scales, and Evolution</i> ; 3 pages	<i>Syntax and Vocabulary</i> ; 4 pages

It is evident from Table 2.3 that diatonic modality is addressed very little in these commonly used textbooks. Several do not mention the subject at all in the Fundamentals section. Further, several do not have a section focusing on 20th-century approaches. It may be that some institutions use a separate text for the post-tonal course. For example, Roig-Francoli authored a separate text, *Understanding Post-Tonal Music* (2008), that complements his *Harmony in Context*; this includes 4 pages on diatonic modality under the heading of *Pitch Centricity and Composition with Motivic Cells*. Another example of a text that might be used for this 4th-semester course is Kostka's *Materials and Techniques of Twentieth-Century Music* (2006), which includes 3 pages on diatonic modality.

Given the dearth of content related to diatonic mode in commonly used music theory textbooks, especially in the context of 20th-century music, it was important to search for pedagogical recommendations on this topic in the *Journal of Music Theory Pedagogy*. A review of titles in all issues of the journal over its 30 years revealed not a single article addressing the teaching of diatonic modality.

Overview of Current Music Theory Pedagogy

Music theory pedagogy has received growing attention since the last two decades of the 20th century. Rogers (2004) states, “the mid-1980s marked a turning point toward heightened interest and momentum for the evolution of theory pedagogy” (p. vii). This decade witnessed the founding of the *Journal of Music Theory Pedagogy* in 1987 and the publication of two important books addressing music theory teaching: White's *Guidelines for College Teaching of Music Theory* in 1981 and Rogers' *Teaching Approaches in Music Theory* in 1984. Summarizing the most recent trends of college music theory teaching and learning, both books were intended to

serve as texts for music theory pedagogy courses and handbooks for college music theory teachers. In *Teaching Music in Higher Education*, Conway and Hodgman (2009) recommended both books as valuable resources for the college music theory instructor. Both White and Rogers updated their original publications with second editions in 2002 and 2004, respectively.

As a major textbook chosen by a variety of schools of music in their music theory pedagogy classes, Rogers's (2004) book fulfills its main purpose as "a useful platform for launching a graduate-level theory pedagogy course" (p. vii). The author provided a thorough background for current and prospective music theory teachers to form their own beliefs and styles by presenting "an objective discussion of the similarities and differences among various types of undergraduate theory programs and curricular designs and teaching styles, philosophies, and approaches" (pp. xiii-xiv). The book is organized into three large sections—Background, Thinking and Listening, and Achieving Teaching Success—each of which includes smaller subsections. "Philosophical Orientations" in Part One and "Teaching Techniques" in Part Three are most applicable to this project. Rogers compared four pairs of the most commonly controversial philosophical underpinnings—integration vs. separation, Comprehensive Musicianship (CM) vs. isolation, historical vs. astylistic approaches, and concepts vs. skills. Rather than making choices and recommendations among these dichotomies, he claims "the central concept in successful theory teaching is synthesis" (p. 29). CM curriculum design versus isolated courses is one of the most significant topics in music theory teaching. Rogers (2004) comments, "the real danger is not isolated courses but isolated learning.... CM is a teaching style that transcends curriculum design" (p. 25). This project is inspired by and based on the general approach of CM. As described by Rogers, the CM approach includes the following traits (among others):

- Real compositions in a variety of textures and mediums, as opposed to artificial exercises in four-part chorale style, form the core of the study.
- Composition and/or improvisation projects, not just mechanical note-pushing drills, are stressed.
- Rehearsing and performing of student or other compositions in class.
- The most important aspect in the CM philosophy is that all of these activities and components be related to one another and lead to a unified and complete understanding. (pp. 20-21)

This project applies the CM approach by presenting detailed pedagogical recommendations for the comprehensive and sequential integration of diatonic modality into the music theory curriculum, utilizing a core of modal repertoire with a focus on quality, breadth, diversity, and pedagogical application.

Modal Repertoire

Given the centrality of repertoire to the CM approach, this review of literature includes a preliminary exploration of quality modal compositions. As indicated in Chapter 1, Jody Nagel's *The Well-Tempered Mode for Solo Piano* was an important component of the original inspiration for this project. According to the composer himself, "the main purpose of these 91 small compositions for piano is pedagogical in nature" (Nagel, 1999, p. ii). More specifically, these compositions reflect Nagel's extremely thorough exploration of his own theoretical ideas regarding modality and modal construction. It is important, therefore, to provide a brief overview of this valuable collection.

Inspired by Bach's *The Well-Tempered Clavier*, Dr. Jody Nagel's interest in modality led to his exploration of all seven white-key modes in all twelve chromatic keys. In early 1999, he

completed *The Well-Tempered Mode* for solo piano, which includes seven separate collections, titled Songs from the Dorian, Phrygian, Lydian, Mixolydian, Aeolian, Locrian, and Ionian, respectively. Each collection represents one single modality in all twelve chromatic keys. Additionally, Nagel concluded each collection with a thirteenth composition in the same key as the first composition of the same collection. With more depth and complexity, the final piece of each collection reflects the composer's further exploration of modes by applying symmetrical ideas and using frequent direct modulations. The compositions in these seven collections are excellent models and valuable resources for contemporary modal theory analysis and aural skills studies.

An extensive repertoire of modal compositions exists dating back centuries and continuing to the present. A preliminary exploration revealed quality modal repertoire that exemplifies each of the diatonic modes and represents all major historical periods as well as a diverse variety of styles and instrumentation—from plainchant to pop, chanson to Chávez, folk to Fauré, Josquin to jazz, Bartok to Bernstein, and blues to Broadway. An extensive list of modal repertoire categorized by mode is presented in Chapter 4.

Summary

This review of the literature related to current collegiate music theory curricula and pedagogy reveals that the common music theory core curriculum in the United States consists of a four- to six-semester sequence of courses. A review of the commonly used music theory textbooks confirms that diatonic modality is addressed very little if at all. Further, this topic has been completely neglected by the *Journal of Music Theory Pedagogy*. This dissertation seeks to fill that gap by developing a sequential curriculum that integrates diatonic modality via a more

comprehensive approach—not simply adding content but importantly enriching the delivery of the content.

CHAPTER THREE

METHODOLOGY

The purpose of this project was to develop a sequential instructional program on diatonic modality for the undergraduate music theory curriculum. Applying a comprehensive musicianship approach, the project will facilitate instruction that makes conceptual connections through listening, analysis, composition, and performance. The final product consists of three additional chapters:

- Ch. 4: A Pedagogical Foundation for Teaching Diatonic Modality in the Undergraduate Music Theory Curriculum
- Ch. 5: Curriculum Guide for Teaching Diatonic Modality in the Undergraduate Music Theory Curriculum
- Ch. 6: Summary, Discussion, and Recommendations

Chapter 4 Content

Chapter 4 focuses on establishing a firm and broad pedagogical foundation for teaching diatonic modality in the undergraduate music theory curriculum—a foundation that supports the construction of the detailed scope and sequence. The chapter begins with an overview of the history of mode, followed by an in-depth discussion of how mode is currently addressed in the typical music theory curriculum, and culminates with a detailed defining of core terminology, concepts, and skills. The second section of the chapter focuses on the introduction and discussion of salient pedagogical principles related to the effective teaching of diatonic modality: sound before symbol, spiral learning, and comprehensive musicianship. This establishes a learning

theory and research base for developing the most effective sequence of instruction for the proposed curriculum. A particularly crucial element for the effective teaching of diatonic modality is the identification of a core of modal repertoire. The final section of the chapter, therefore, includes the presentation of this core repertoire. The chapter concludes with a summary of specific pedagogical recommendations that serve as the foundation for the detailed scope, sequence, and lesson plans in Chapter 5.

Chapter 5 Content

Building on the firm pedagogical foundation established in Chapter 4, Chapter 5 presents the detailed curriculum guide for teaching diatonic modality in the undergraduate music theory core curriculum with a specific focus on the first two years of theory study: fundamentals, diatonic harmony, chromatic harmony, and 20th-century music theory. After briefly summarizing the deficiencies in current music theory curricula with respect to diatonic modality and then highlighting the specific recommendations that underly the proposed supplement to the core music theory curriculum, a comprehensive scope and sequence is delineated in three curriculum mapping tables. Building on this vital framework, the sequence of detailed lesson plans that constitute a major portion of the chapter provide thorough instructional guidelines for each step in the teaching-learning process.

Chapter 6 Content

Chapter 6 reflects on the developmental process for this project, offers insights about the practical applications of the project, and provides recommendations for similar projects.

Chapter Summary

Current college music theory curricula and textbooks include very little on diatonic modality, despite the fact that a large amount of the 20th-century repertoire is based on modal and scalar systems. This project addresses this curricular limitation by creating a teaching guide for the sequential integration of diatonic modality into the undergraduate music theory curriculum. Applying a comprehensive musicianship approach, the project will facilitate instruction that makes conceptual connections through listening, analysis, composition, and performance.

CHAPTER FOUR
A PEDAGOGICAL FOUNDATION FOR TEACHING DIATONIC MODALITY
IN THE UNDERGRADUATE MUSIC THEORY CURRICULUM

As a result of the emphasis on traditional tonal harmony in Western music education, most college theory courses concentrate almost exclusively on the major/minor scalar system while marginalizing other types of scales such as diatonic modes. Despite the fact that a significant amount of 20th-century repertoire is based on modal and scalar systems, diatonic modality continues to receive very little attention in the typical undergraduate music theory curriculum. This project seeks to rectify this pedagogical paradox by developing a concise sequence of instruction that integrates conceptual content with practical and authentic musical examples. A crucial first step in this process is to establish a firm and broad pedagogical foundation for teaching diatonic modality in the undergraduate music theory curriculum—a foundation that will support the construction of a detailed scope and sequence. According to the International Bureau of Education (IBE)—an institute of UNESCO, the United Nations Educational, Scientific, and Cultural Organization—scope and sequence are:

Interrelated concepts that refer to the overall organization of the curriculum in order to ensure its coherence and continuity. Scope refers to the breadth and depth of content and skills to be covered. Sequence refers to how these skills and content are ordered and presented to learners over time. (“Scope and sequence,” n.d., para. 1)

The first section of this chapter, therefore, focuses on establishing a foundation for the *scope* of the proposed curriculum. This begins with an overview of the history of mode, followed by an in-depth discussion of how mode is currently addressed in the typical music theory curriculum,

and culminating with a detailed defining of core terminology, concepts, and skills. The second section of the chapter focuses on the introduction and discussion of salient pedagogical principles related to the effective teaching of diatonic modality: sound before symbol, spiral learning, and comprehensive musicianship. This establishes a learning theory and research base for developing the most effective *sequence* of instruction for the proposed curriculum. As becomes clear, a particularly crucial element for the effective teaching of diatonic modality is the identification of a core of modal repertoire. The final section of the chapter, therefore, includes the presentation of this core repertoire. The chapter concludes with a summary of specific pedagogical recommendations that will serve as the foundation for the detailed scope, sequence, and lesson plans in Chapter 5.

The History of Mode

Mode, the oldest and most long-lasting musical scale type in the western world, possesses a profound significance in both historical context and compositional practice. Its long history of evolution vividly depicts the major musical characteristics of each musical style period. From eight medieval church modes to seven modern diatonic modes, the longevity of the historical development of mode places it as one of the most quintessential elements in Western music.

While the term *mode* first emerged in Ancient Greece, the foundation for the definition as used in current Western music theory and practice developed in Europe in the Middle Ages. Consisting of eight modes—four pairs of authentic–plagal modal octaves with finals on d, e, f, and g, respectively—the original eightfold modal system was well documented in Italy during the 14th and 15th centuries, evidenced by influential theory treatises such as Marchetto’s *Lucidarium* (1318) and Tinctoris’ *Liber de natura et proprietate tonorum* (1476). Sixteenth-century theorists extended the original eightfold modal system to a 12-mode system. This new

theory of 12 modes was illustrated in the well-known *Dodecachordon* (1547) by Glarean and *Istitutioni harmoniche* part iv (1558, 1573) by Zarlino. As a result of the increasing needs of transposing modal scales on the organ and the consequential development of a new tuning system, the 17th century witnessed a slow-paced but progressive transition from the modal system to 24 major and minor keys. The evolutionary transition from modality to tonality initiated the Common Practice era of Western music, featuring tonal harmony and major/minor tonality as the mainstream in music theory and practice during a 250-year span, roughly from mid-17th century to the opening of the 20th century. The modal system was replaced by the newly established tonal system; however, modal scales survived and evolved from the traditional 8 or 12 modes to 7 modes by avoiding the differentiation between authentic and plagal modes. Marginalized but featured in European folk music through 19th-century Romanticism and Nationalism, modal scales eventually re-emerged as a musical resource in the 20th and 21st centuries, increasingly and consistently inspiring worldwide musicians.

In compositional practice, mode played a central role in Medieval plainchants and Renaissance polyphony. Although any pre-Baroque music seems to be conceptually remote and unfamiliar to contemporary ears, a few Renaissance modal hymns are well-preserved as a result of being borrowed by successive composers throughout the generations in new settings of their original hymns. A well-known example is Martin Luther's Phrygian hymn (chorale) "Aus tiefer Not schrei ich zu dir" (published in 1524), which was borrowed by J. S. Bach in his 6-movement chorale cantata *Aus tiefer Not schrei ich zu dir*, BWV 38 (composed in 1724). Later composers, including Felix Mendelssohn and Max Reger, also wrote compositions for organ based on this same hymn tune. The modal works of Renaissance composers such as Josquin, Thomas Tallis, Palestrina, and Lassus are also models and resources for contemporary composers and

performers. During the 250-year Common Practice Period, mode was closely associated with traditional folk tunes; these became great inspirations for 19th-century composers influenced by Nationalism. Well-known composers of the time integrated diverse folk melodies into their works to express national feelings, including Chopin, Liszt, Mahler, Janáček, Fauré, Grieg, and Wolf. Mode was revitalized during the Post-Common Practice Period of the 20th and 21st centuries, when functional tonality lost its predominance in compositional practice. The revival of modes by late 19th- and early 20th-century composers resulted in a great number of compositions based on modality, especially the traditional folk and national music. The continued exploration and rediscovery of mode and modality has become one of the major trends in the music world since the beginning of the 20th century, as music experienced the explosion of diversity to an unprecedented extent. The diatonic modes have been used frequently by contemporary composers such as Bartok, Debussy, Vaughan Williams, Sibelius, Carl Nielsen, and Jody Nagel.

Mode in the College Music Theory Curriculum

It is the historical significance of mode in Western music theory as well as the richness and versatility of modal compositions that make mode one of the most quintessential elements in Western music. Therefore, all modes—not just major and minor scales—should be emphasized and mastered by undergraduate music majors. To achieve this goal, modes need to be taught consistently and thoroughly in college music theory classes—both written theory and aural skills. As a result of the emphasis on traditional tonal harmony in Western music, however, most college theory courses concentrate almost exclusively on the major/minor scalar system while marginalizing other types of scales. Taught vaguely and learned only as purely theoretical

constructs, diatonic modes will rarely have practical significance or implications in students' further studies.

Murphy and McConville (2017) recently completed a survey investigating the music theory undergraduate core curriculum. They collected data from 275 respondents regarding general undergraduate requirements, specific topics within the curriculum, placement exams and proficiency tests, technology and online courses, and consideration of future changes in the curriculum. Published in the *Journal of Music Theory Pedagogy*, the results revealed that most schools require music majors to take four to five semesters of written music theory and four semesters of aural skills. The most common written music theory sequence consists of two semesters of diatonic harmony, one or two semesters of chromatic harmony, one semester of 20th-century music, and one semester of form and analysis. Schools offering a separate fundamentals class usually do not count it in the hours for the major in music; fundamentals and counterpoint are more often taught as part of the core sequence rather than in separate classes. The 2017 survey also investigated the specific topics included in the required core written theory sequence and within fundamentals courses. Specific to modes, 83.4% indicated that modes are covered in their core written theory sequence, while 23% reported that modes are taught in the fundamentals course. A few conclusions can be drawn based on the survey results: 1) current college music theory curricula generally focus on harmonic tonality of the Common Practice Period; 2) diatonic modes are often NOT taught in theory fundamentals classes; and 3) diatonic modes (if included at all) are more often introduced in the beginning of 20th-century music theory study.

The conclusions drawn from the Murphy and McConville survey correlate with the results of the textbook content review presented in Chapter 2 of this dissertation. The careful

examination of the contents of twelve commonly used written music theory textbooks revealed that diatonic modality—found either in fundamentals near the beginning of the texts or in a section focusing on 20th-century approaches, or both—is addressed very little in these theory textbooks (see Table 2.3). As the most common pedagogical tool in college music theory teaching and learning, theory textbooks (both written theory and aural skills) are used by over 80% instructors in the U.S.; therefore, the particular textbook(s) chosen by the instructors typically determine whether and/or how in-depth a topic is addressed. The 2017 Murphy and McConville survey identified the top five textbooks used for written theory and the top six used for aural skills. Four of the top five written theory textbooks were included in the Chapter 2 review. Applying a similar approach, Table 4.1 presents the results of an updated review: a detailed examination of the top five written theory textbooks and the top six aural skills textbooks with respect to contents related to diatonic modes.

Despite the significance of mode in Western music theory and compositional practice, the data in Table 4.1 demonstrates that it receives very little attention in the current undergraduate music theory curriculum. This discrepancy, frequently found in other disciplines as well, is a result of the intrinsic contradiction between increasing knowledge and fixed course credit hours in the curriculum. The development of modern information technology in the past three decades has extensively revolutionized the world and humans' lives. Higher education in the U.S. has been significantly influenced by the fast-paced information dissemination and worldwide academic exchange. This prosperity of academic scholarship, as evidenced by the constant increase of interests in exploring new subareas and the improvements of methodology, exacerbates the difficulty of designing a balanced and well-rounded curriculum in higher

Table 4.1

Diatonic Modality in Most Popular Primary Undergraduate Theory Textbooks

Title	Author(s)	Diatonic Mode Content
<i>Written Theory Textbooks</i>		
<i>Tonal Harmony</i>	Kostka, Payne, and Almen	Not Addressed in Fundamentals Includes 2 pages under <i>Scale Materials</i> in the 20 th Century Part
<i>The Musician's Guide to Theory and Analysis</i>	Clendinning and Marvin	<i>Minor Keys and Diatonic Modes</i> : 6 pages (F) <i>Modes, Scales, and Sets</i> ; 3 pages (20 th Century)
<i>The Complete Musician: An Integrated Approach to Tonal Theory, Analysis, and Listening</i>	Laitz	Not Addressed at all
<i>Music in Theory and Practice. 2 vols</i>	Benward and Saker	Vol 1: <i>Scales, Tonality, Key, and Modes</i> : 3 pages Vol 2: <i>Late Renaissance Polyphony</i> : 2 pages <i>Dual Modality</i> ; One example (20 th century part)
<i>Concise Introduction to Tonal Harmony</i>	Burstein and Straus	Not Addressed at all
<i>Aural Skills Textbooks</i>		
<i>Music for Sight Singing</i> 10 th edition 2019	Rogers & Ottman	21 chapters in total The Diatonic Modes are introduced in Chapter 20
<i>A New Approach to Sight Singing</i>	Berkowitz, Fontrier, Kraft, Goldstein, & Smaldone	Organized in four chapters: melodies; rhythm; duets; and sing & play The Melodies chapter includes 757 sight-singing exercises, 12 exercises (no. 307 – 318) are modal. Dorian, Phrygian, Mixolydian, and Aeolian The Duets chapter includes 139 exercises, 8 of them are modal (no. 72 – 79)
<i>Manual for Ear Training and Sight Singing</i> 2 nd edition 2017	Karpinski	79 chapters and 1790 sight-singing exercises 2 chapters (50 & 51) and 30 exercises Chapter 50 The Modes: Relative Approach Chapter 51 The Modes: Parallel Approach 1041 – 1071 The Modes
<i>Ear Training: A Technique for Listening</i> 7 th edition 2010	Benward and Kolosick	265-page workbook 2 pages on Mode Identification (Dorian, Phrygian, Lydian, Mixolydian, and Aeolian) 1 page on Interval Dictation: adding proper accidentals to modal melodies
<i>Progressive Sight Singing</i>	Krueger	2 Parts: Part 1 Rhythmic Reading (22 chapters) + Part 2 Melodic Reading (24 chapters) The last chapter introduces Modes (pp 524 – 536)
<i>Music for Sight Singing</i>	Benjamin, Horvit, and Nelson	26 chapters in total Diatonic Modes are introduced in part of the chapter 18

education. Without even considering other interference factors, making decisions about what to teach and how to teach are increasingly challenging for almost every college professor.

Music theory as a professional discipline in the United States began to develop in the 1960s. Music theory pedagogy as an independent field focusing on teaching in the profession started its journey in the 1980s (Berry & Solkema, 2014). A young area of study in its mid-30s, music theory pedagogy has already experienced overwhelming expansion. A large number of new branches concentrating on contemporary music theory have emerged as potential content in the collegiate music theory curriculum, including set theory, jazz theory, and popular music analysis. At the same time, a variety of innovative instructional approaches representing different teaching philosophies have emerged from other areas of research. Faced with the unprecedented challenge and pressure of many more choices in terms of teaching content and instructional approaches, it is even more difficult to design a comprehensive and balanced undergraduate music theory curriculum to best fit into the entire music program. One of the biggest challenges is keeping a reasonable balance between integrating new information and adjusting pre-existing knowledge without overwhelming the students. Unfortunately, the tendency of making music theory harder seems evident from the data reported in a survey conducted by Anna Vezza (2013):

Up to about 25% of students don't pass the first semester of written theory and up to about 20% of students don't pass the first semester of aural skills.... Up to 35% of students in certain programs don't pass the entire aural skills or written theory curriculum.... As many as 20% of college undergraduates drop

the music major after the first year; certainly some of this attrition can be attributed to difficulties in theory and aural skills courses. (pp. 26-27)

Veza proposed a list of recommendations for revising music theory curricula to increase student success rates. A few recommendations listed here provide support for this dissertation, including offering a separate fundamentals course, the correlation of written theory and aural skills, and beginning the instruction of aural skills with the fundamentals (pp. 46-47). The last section of Murphy and McConville's 2017 survey included questions about considering changes to written and aural skills classes over the next two years. The results indicated that 57.2% of schools are considering making changes to written theory classes and 46.9% schools intend to make changes to aural skills classes (p. 216).

It seems evident from the research that the current undergraduate music theory curriculum needs some revisions and adjustments. While presenting the existing issues in general, few researchers have suggested specific recommendations regarding changes in content or approach. Although several new theory textbooks have been published since 2000 and some of them are being adopted by universities and colleges in recent years, neither the basic curricular structure of college music theory nor the principal contents of these new textbooks has changed in any significant way.

How, then, can music theory move forward? What can motivate music theory departments to make needed changes to the standard curriculum? To answer these questions, it is crucial and meaningful to review the goals of teaching/learning music theory, since both teaching content and approach should be chosen to best reflect the essential purpose. Rogers (2004) wrote in the beginning of his pedagogy book, *Teaching Approaches in Music Theory*, "the most important place to begin a book about teaching music theory is with a discussion of its purposes

and goals” (p. 3). Rogers emphasizes, “[in a music theory course] an integration must be fashioned between the conceptual and perceptual components of students’ training” (p. 8). He chose the phrase “thinking and listening” to represent these two elements and described them as “the inseparable bond of all theory programs” (p. 8). Rogers strongly believes theory training is intimately bound up with musicianship acquirement, which requires “the competence to use our thinking ability to improve listening and our listening ability to improve thinking” (p. 12). The duality of thinking and listening guides us to make the appropriate choice of teaching approach. Rather than offering specific suggestions regarding teaching content, Rogers comments in general that music theory as “a broad domain” is hard to define, but “it is essential to consider the nature of this diversity [of music theory]” (p. 3). The musical world consists of many different scales, including major and minor, modal, pentatonic, whole-tone, and many others. These diverse scales contribute significantly to the variety and multi-dimensionality of music. Therefore, music theory professors should be integrating a broader view of scales into the undergraduate theory curriculum. This project addresses this curricular limitation by creating a teaching guide for the sequential integration of diatonic modes into the undergraduate music theory curriculum.

Defining Core Terminology, Concepts, and Skills

As part of developing a pedagogical foundation for the teaching of diatonic modes in the college music theory curriculum, it is crucial to have clarity with respect to the relevant core terminology, concepts, and skills. Being able to properly define *mode* and *diatonic mode* in the 20th-century context is a particularly important prerequisite. Defining mode properly is challenging because it is rooted in the Renaissance, lay in relative dormancy throughout the over 250-year functional harmony/tonality-dominant common practice era, and re-emerged in the 20th

century having absorbed the influence of tonality. In order to avoid potential confusion, the following discussion is intended to 1) clarify the relationship between mode and scale; and 2) delineate two important and distinct perspectives of modes via the examination of significant professional and academic resources including commonly-used college music theory textbooks, *Grove Music Online* (music encyclopedia), and other theoretical publications on modes.

Mode and Scale

As defined by *Grove Music Online*, “a scale is a sequence of notes in ascending or descending order of pitch.... a sequence long enough to define unambiguously a mode, tonality, or some special linear construction” (Drabkin, 2001b, para. 1); “the term ‘mode’ in the early 19th century signified the major or minor scale; alternatively, it could refer to an ancient Greek mode, which would signify one of Glarean’s 12 authentic or plagal octave species” (Powers et al., 2001, “Modal Scales and Traditional Music,” para. 1). These definitions reveal the intimate and complex relationship between scale and mode: a scale could define a mode, and a mode could signify a scale.

Scale and mode overlap in a specific way. Familiar Western musical scales include pentatonic (five-note) scales, hexatonic (six-note) scales, heptatonic (seven-note) scales, octatonic (eight-note) scales, and the chromatic (12-note) scale. Among these diverse scales, heptatonic scales are the most commonly used throughout history. The most ubiquitous of these seven-note scales include all the *diatonic scales* as well as the melodic minor and harmonic minor scales. Diatonic scales consist of five whole tones and two semitones per octave, with the half steps separated by either two or three whole steps. *Grove Music Online* suggests “the white notes of the piano offer the simplest illustration of diatonic scales” (Drabkin, 2001b, para. 2) and lists all seven diatonic scales in the following order: C to C, the Major scale (Ionian); D to D, the

Dorian scale; E to E, the Phrygian scale; F to F, the Lydian scale; G to G, the Mixolydian scale; A to A, the Minor scale (Aeolian); and B to B, the Locrian scale (Hyperaeolian). The *diatonic scales* are described and notated identically to the *diatonic modes*, which consist of seven modes or modal scales with each mode 1) sharing the same pitch collection; 2) consisting of five tones and two semitones per octave; and 3) resulting in seven distinctive sequences of whole- and half-steps. It is clear, therefore, that *diatonic scales* and *diatonic modes* are used interchangeably in current music theory teaching.

The Venn diagram in Figure 4.1 demonstrates and clarifies the relationship among modes, scales, heptatonic scales, and diatonic modes/scales. The overlapping section indicates the collection of the diatonic modes/scales that are shared by the three larger collections: modes, scales, and heptatonic scales. The independent section of the modes circle represents applications of mode other than scale type, such as mensural notation, interval, and melody type. Besides heptatonic scales, the scale circle also includes pentatonic scales, hexatonic scales, octatonic scales, the chromatic scale, and hybrid scales. Within the heptatonic scale collection, the non-overlapping section represents non-diatonic seven-note scales, such as the harmonic minor and melodic minor scales. In summary, mode and scale can be used interchangeably when they both specifically indicate the collection of the seven diatonic scales/modes: major scale is synonymous with major mode, Dorian mode is synonymous with Dorian scale, etc. While representing two sides of the same coin, *scale* typically refers to the visual identification of intervallic patterns while *mode* refers to the aural perception of color.

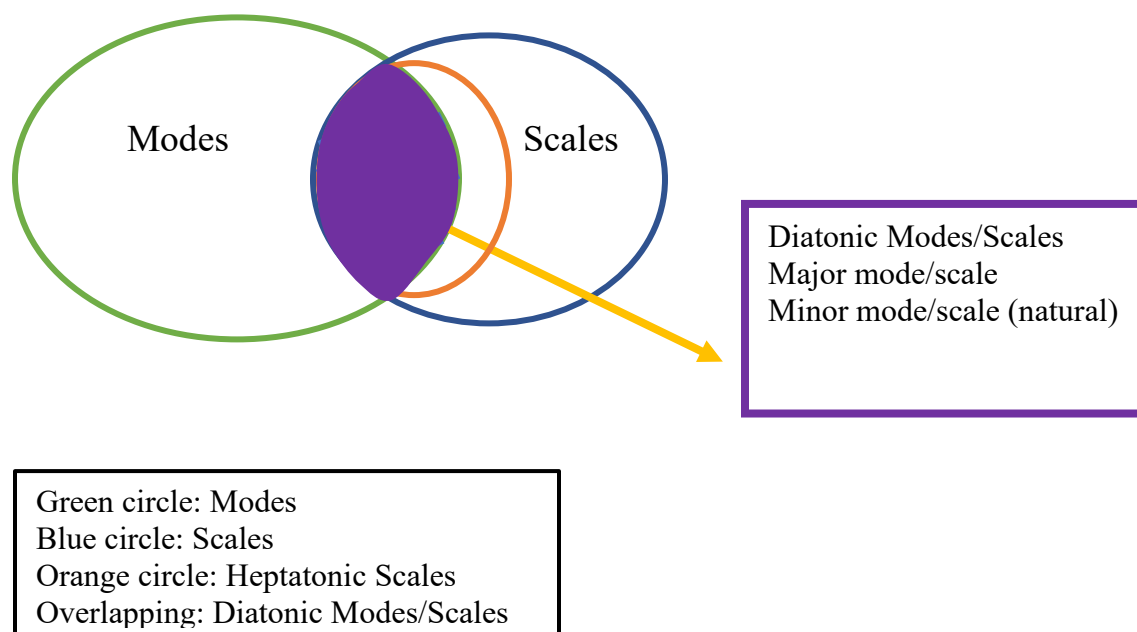


Figure 4.1. Venn diagram of the relationships between modes and scales.

Since *diatonic modes* and *diatonic scales* are used synonymously in the 20th- and 21st-century context, specific terms used in reference to major and minor scales—such as tonic and scale degree—are appropriately applied to modes as well. Tonic, tonal center, and final are three terms used in music theory to represent the most significant note of a scale or mode. Historically, the majority of compositions in the pre-tonal era were based on the eight- or twelve-mode system; the term *final* was used to indicate “the concluding scale degree of any melody said to be in a Mode” (Powers, 2001, para. 1). This “old” modal system was gradually replaced by the “new” tonal system during the common-practice period. In the tonal system, *tonic* is used to signify the main note of a key in a major or minor scale, the first scale degree, and the functional triad built on the tonic note. “In music based on one of the church modes, the function of tonic is most closely approached by the Final of that mode” (“Tonic,” 2001). Transitioning into the post-tonal era, the new term *tonal center* is used more often when analyzing post-tonal and atonal

music. As the term *final* is no longer being used when analyzing contemporary modal compositions, the modern use of *tonic* is expanded to also refer to the main note of a diatonic mode.

Scale Degree

Another important term, *degree*, is defined by *Grove Music Online* as “the position of a note with reference to a scale... the referential scale is usually assumed to be diatonic (i.e., a major or minor scale or one of the church modes)” (Drabkin, 2001a, para. 1). Students more often associate scale degrees and their names solely with major and minor scales as a result of the way these are taught. According to the definition, however, it is proper and important to teach students to associate scale degrees with all diatonic modes. In the major/minor tonal system, both Arabic numerals with carets (e.g., $\hat{2}$) and functional names are used to label scale degrees. Since functional harmonies are not applied in modal compositions, it may not be suitable to reference scale degrees other than the tonic of a mode with functional names such as dominant, leading tone, etc.; using numbers will be a better choice.

In summary, a diatonic mode or scale is a seven-note (heptatonic) scale that includes five whole steps and two half steps in each octave, with the two half steps separated by either two or three whole steps. The modern western diatonic modes use the same set of notes as the major scale, starting from each of its seven scale degrees in turn as a tonic and thereby resulting in different sequences of whole and half steps. The most common names in use to designate the resulting seven diatonic modes are Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian.

Two Perspectives of Modes: Rotational and Transpositional

Current theory textbooks approach the presentation of diatonic modes from a visual/notational perspective with little or no attention to the aural—how to sing or aurally identify the modes. Because a variety of solmization systems (fixed-do, movable-do, numbers, letter names, etc.) are being used in current collegiate aural skills classes and textbooks avoid recommending one over the others, the aural approach to understanding modes is absent or inconsistent and, therefore, more likely to be ineffective. To add to the pedagogical complexities, even the visual/notational approaches originate from two distinct perspectives. These two perspectives have significant pedagogical implications for both the visual and aural teaching of diatonic modes and, therefore, need to be explored and clarified.

The rotational perspective. The major scale is the most familiar scale to Western ears and the first scale typically introduced in Western music education. As a result, it serves as the referential scale for the study of the other heptatonic scales (e.g., minor scale, diatonic modes). As one of the seven diatonic scales/modes, the major scalar pattern can be viewed as a template for teaching the other six diatonic modes. As Kostka, Payne, and Almen (2018) write in *Tonal Harmony*:

The simplest way to represent each of the modes is by using the tones of the C major scale, but with a tone other than C serving as the tonal center for each mode.... The diatonic modes are commonly identified by tonal center and mode name (D-Dorian). Each mode has a distinctive arrangement of whole steps and half steps. (pp. 464-465)

In *The Musician's Guide to Theory and Analysis*, Clendinning and Marvin (2016) discuss both the “relative” and “parallel” approaches to identifying modes. In the section focusing on the

relative approach, the authors observe that the “six traditional diatonic modes share the same diatonic collection as a major scale, but each begins on a different starting pitch... the new arrangement of whole and half steps gives each mode a distinctive sound” (p. 104). Similarly, Susanni and Antokoletz (2012) write:

A musical mode is a scalar structure consisting of a specific number of notes arranged according to a specific intervallic order.... The complete intervallic order of any given mode can be rotated to create a family of modes. (p. 81)

The seven rotations of the diatonic model make up the complete diatonic modal family that consists of the Ionian (rotation 1), Dorian (rotation 2), Phrygian (rotation 3), Lydian (rotation 4), Mixolydian (rotation 5), Aeolian (rotation 6), and Locrian (rotation 7) modes. (p. 86)

These three quotations found in two commonly used theory textbooks and one principal theory research book recommend presenting diatonic modes by referring to the pitch content and scalar pattern of the C major scale. In this way, the six diatonic modes other than C-Ionian can easily be built and notated by *rotating* the C major scale: using the same seven diatonic notes in the C major scale with each note other than C in turn serving as tonic. The resulting six scalar patterns (or intervallic orders) can be easily written out by rotating the major scalar pattern. This approach reflects the *rotational* perspective. The term *rotation* is also used in post-tonal theory, referring to one of the two basic transformations of any ordering (i.e., pitch set, tone row). To rotate a scale once, either place the first note last or the last note first, leaving all other notes unchanged in order (Rahn, 1987). For example: C-D-E-F-G-A-B in its first rotation is D-E-F-G-A-B-C. The rotational approach has the mutual benefit of matching the current use of the terminology in music theory while also being the simplest and most natural way to visually

present and teach the diatonic modes. Table 4.2 serves as a helpful visual aid for this introductory instruction.

Table 4.2

Rotational Presentation of the Diatonic Modes

Seven diatonic modes by rotating C major scale	Scalar Pattern/Intervalllic Order
C-Ionian (major): C-D-E-F-G-A-B-C	W-W-H-W-W-W-H
D-Dorian: D-E-F-G-A-B-C-D	W-H-W-W-W-H-W
E-Phrygian: E-F-G-A-B-C-D-E	H-W-W-W-H-W-W
F-Lydian: F-G-A-B-C-D-E-F	W-W-W-H-W-W-H
G-Mixolydian: G-A-B-C-D-E-F-G	W-W-H-W-W-H-W
A-Aeolian (minor): A-B-C-D-E-F-G-A	W-H-W-W-H-W-W
B-Locrian: B-C-D-E-F-G-A-B	H-W-W-H-W-W-W

The transpositional perspective. In contrast to the rotational perspective, the transpositional perspective emphasizes the scalar comparison and categorization of modes that share the same tonic pitch (e.g., C Ionian and C Lydian). Rather than using the C major scale as the sole referential scale, the transpositional perspective refers both to C major (C-Ionian) and its parallel natural minor (C-Aeolian) scales, categorizes transposed diatonic modes as either *major-like* or *minor-like*, and then compares each mode with either the C major or C natural minor scale. *Transposition*, the key word of this perspective, is defined as “the notation or performance of music at a pitch different from that in which it was originally conceived or notated, by raising or lowering all the notes in it by a given interval” (Rushton, 2001, para. 1). The concept and application of transposition is usually taught to students in the early stage of music theory learning, typically along with the study of scales and key signatures.

Applying this transpositional or parallel perspective, many music theorists then classify the modes into two categories. Clendinning and Marvin (2016) suggest that the modes can be

grouped into two families “according to whether their third scale degree comes from the major or minor pentachord” (p. 105); for each mode, one pitch is altered in comparison with the parallel major or minor scale. Turek and McCarthy (2014) list the transposed diatonic modes (all sharing the same tonic) in two groups—major modes and minor modes—and mark “the single pitch difference between each mode and the major or natural minor scale as *modal inflection*” (pp. 492 – 493). Susanni and Antokoletz (2012) state: “The generally accepted view is that the Dorian, Phrygian, and Locrian are ‘minor-like’ whereas the Lydian and Mixolydian are ‘major-like.’ This interpretation of modal color relies mostly on the minor or major third and sixth modal degrees” (p. 88). Table 4.3 presents the modes from this transpositional perspective.

Table 4.3

Transpositional Presentation of the Diatonic Modes with Major and Minor Categorization

Major Modes	Minor Modes
C-Ionian (major): C-D-E-F-G-A-B-C	C-Aeolian (natural minor): C-D-E \flat -F-G-A \flat -B \flat -C
C-Lydian: C-D-E-F \sharp -G-A-B-C	C-Dorian: C-D-E \flat -F-G-A-B \flat -C
C-Mixolydian: C-D-E-F-G-A-B \flat -C	C-Phrygian: C-D \flat -E \flat -F-G-A \flat -B \flat -C
	C-Locrian: C-D \flat -E \flat -F-G \flat -A \flat -B \flat -C

Presenting all seven diatonic modes starting on the same pitch facilitates their visual comparison and categorization into these two groups of major-like or minor-like by focusing on the interval between the third scale degree and the tonic. Spelling and/or notating modes is much easier from a rotational perspective, however, because each of the rotated diatonic modes consists of only diatonic notes (Figure 4.2) while each of the transposed diatonic modes (except the original C-Ionian) includes one or more chromatic notes (see Figure 4.3), thereby requiring a more advanced approach that involves the proper use of both diatonic and chromatic pitches.

Implications for aural skills. Because conceptual component (thinking) and perceptual component (listening) are strongly correlated in music theory training, teaching diatonic modes should get equal emphasis in aural skills and in written theory classes; learning to sing and aurally identify diatonic modes should parallel being able to notate and visually distinguish diatonic modes. In the late 1980s and early 1990s, inspired by the initiation of the *Journal of Music Theory Pedagogy* (JMTP), an increasing number of research studies and surveys with respect to the methods and materials applied in teaching college music theory became available and accessible. Pembroke and Riggins conducted a 1990 survey to “provide ear-training teachers with basic information about current methods and materials for teaching aural skills in colleges and universities in this country” (p. 231). The results published in the fourth volume of JMTP (Fall 1990) indicated that, “among approaches to teaching sight-singing, movable function as opposed to fixed function is preferred by an overwhelming majority of instructors” (p. 239). Specifically, among 279 individual respondents who were instructed to check all of the systems they were using, 45% applied scale-degree numbers; 37% applied neutral syllable; 35% used movable-do, do-minor; and 30% used movable-do, la-minor; while the percentage choosing other systems, such as fixed-do or letter names, was below 15%, respectively. The debate about the best solmization system to use in college music theory classes has been ongoing for more than 30 years. As a result, most aural skills textbooks do not recommend or apply a specific solmization system: “Sight-singing manuals, other than presenting a cursory explanation of each system, usually advocate no one system, deferring instead to the teacher” (Smith, 1991, p. 1). Murphy and McConville’s 2017 survey of the music theory undergraduate core curriculum reveals a surprisingly different result than the Pembroke and Riggins survey conducted 27 years earlier: Among 239 respondents who were again instructed to check all of the systems they were

using, 73.22% use movable-do, do-minor; 21.34% apply movable-do, la-minor; 20.17% use scale degree numbers; and 15.06% use the fixed-do approach. Comparing the two surveys separated by a quarter-century, both movable-do syllable systems (do-minor and la-minor) sustain their popularity in college aural skills teaching, with the overwhelming majority applying the do-minor approach. Given this reality, it is important to develop an approach to the instruction of diatonic modes that integrates both moveable-do systems (while also noting that scale degree numbers is conceptually simply a numeric version of do-minor without the chromatic options).

The movable-do, do-minor and movable-do, la-minor approaches share some significant similarities and also have their own distinguishable uniqueness. When singing a major scale or any melody in a major key, both systems are used identically in terms of the choice of syllables. When encountering the minor scale(s) and diatonic modes other than Ionian as well as melodies based on these non-major scales, however, the two approaches are quite different. Do-minor, also called do-tonic, labels the tonic or the first scale degree *do* regardless of the scale type. For example, a B natural minor scale is sung as *do, re, me, fa, so, le, te, do*; a C harmonic minor scale is sung as *do, re, me, fa, so, le, ti, do*; a D-Dorian scale is sung as *do, re, me, fa, so, la, te, do*; an E-Phrygian scale is sung as *do, ra, me, fa, so, le, te, do*; etc. Movable-do, la-minor, “sometimes called ‘key-signature’ movable-do” (Smith, 1991, p. 13), emphasizes the relative relationship among different scales that share the same key signature and allows for the singing of the seven modes—the seven rotations of the major scale and the diatonic melodies of any mode—with only the seven diatonic syllables. Therefore, D-Dorian is sung as *re, mi, fa, so, la, ti, do, re*; E-Phrygian is sung as *mi, fa, so, la, ti, do, re, mi*; and so on. As demonstrated in Table

4.4, movable-do, la-minor correlates with the rotational perspective while movable-do, do-minor correlates with the transpositional perspective.

Table 4.4

Applications of the Two Moveable-Do Systems to Diatonic Modes

	Movable-do, la-minor (Rotational)	Movable-do, do-minor (Transpositional)
Ionian	do-re-mi-fa-so-la-ti-do	do-re-mi-fa-so-la-ti-do
Dorian	re-mi-fa-so-la-ti-do-re	do-re-me-fa-so-la-te-do
Phrygian	mi-fa-so-la-ti-do-re-mi	do-ra-me-fa-so-le-te-do
Lydian	fa-so-la-ti-do-re-mi-fa	do-re-mi-fi-so-la-ti-do
Mixolydian	so-la-ti-do-re-mi-fa-so	do-re-mi-fa-so-la-te-do
Aeolian	la-ti-do-re-mi-fa-so-la	do-re-me-fa-so-le-te-do
Locrian	ti-do-re-mi-fa-so-la-ti	do-ra-me-fa-se-le-te-do

As is evident in Table 4.4, the la-minor system requires only the seven diatonic syllables when singing the seven diatonic modes. Using the do-minor system, however, six additional chromatic syllables are required. While the do-minor/transpositional approach is favored by current music theory pedagogy and employed as a primary approach of introducing modal scales in commonly-used theory textbooks, the la-minor/rotational approach is clearly the easier aural approach for initial introduction of the modes and it has the distinct advantage of reinforcing the definition of *diatonic* mode. Eventually, the do-minor/transpositional approach becomes important, as well. The unique characteristics of each approach have values for achieving distinct instructional objectives, including both notating and singing all the modal scales. Table 4.5 compares the two approaches from notational and aural perspectives.

Table 4.5

Visual and Aural Instructional Implications of the Rotational and Transpositional Perspectives

	Rotational Perspective Same key signature; <i>Relative keys</i>	Transpositional Perspective Same tonic; <i>Parallel keys</i>
Visual: Notate Modal Scales	Referential major scalar pattern and the rotational order of the seven diatonic modes needs to be memorized; Diatonic notes with appropriate key signature (no accidentals)	All seven scalar patterns need to be memorized and correctly associated with each individual name; Chromatic notes and accidentals are needed
Aural: Sing Modal Scales	Movable-do, la-minor Diatonic syllables only	Movable-do, do-minor Diatonic and Chromatic syllables (*ra, me, fi, se, le, te)

The function of the rotational and transpositional approaches is similar to the function of relative and parallel keys (major and minor). Relative major and minor scales share the same key signature while parallel major and minor scales share the same tonic. Similarly, rotated modes share the same key signature while transposed modes share the same tonic. When using solfege syllable systems to aurally interpret both relationships, *movable-do, la-minor* most directly and effectively illustrates the relative/rotational relationship, while *movable-do, do-minor* accomplishes the same for the parallel/transpositional relationship. Since *relative* and *parallel* are strongly and exclusively correlated with major-minor tonality, it is preferable to use *rotational* and *transpositional* to indicate the relationships among diatonic modes.

Learning Theory Foundation

In *Teaching Music in Higher Education*, Conway and Hodgman (2009) emphasize the need for successful college professors to attain “two types of knowledge for the subject: (1) knowledge of the subject content and (2) knowledge of how to teach the subject content” (p. 7). This recognition dates back to at least 1997 when Campbell and Smith identified the paradigm shift taking place in college teaching and learning. They noted the emerging transition from an old paradigm based on “anyone with expertise in their field can teach without training to do so”

to a new recognition that “teaching is a complex application of theory and research that requires considerable training and continual refinement of skills and procedures” (pp. 275-276). This contemporary paradigm confirms that *pedagogical content knowledge*—knowledge of how to teach the subject content—is equally important to *content knowledge*—knowledge of the subject content. Building on the most recent general educational research related to teaching and learning, Conway and Hodgman discuss best-practice strategies for the effective teaching of collegiate music courses. They advocate strongly for a learner-centered teaching philosophy and active learning strategies to facilitate and enhance students’ internalized learning. They encourage music professors and instructors to “consider the need for music making as part of active learning” (p. 123). As they emphasize in the beginning of the book, “For music courses, ‘active’ [learning] strategies involve singing, moving, playing instruments, creating sound, composing, improvising, listening to, and evaluating music” (p. 12). Their valuable pedagogical text for teaching music in higher education helps readers understand that mastery of content knowledge alone does not guarantee effective teaching. To become an effective teacher of any subject, one must understand and apply the foundational pedagogical principles drawn from current educational research on teaching and learning in general as well as in the specific content area. Effective music instructors, therefore, must have a thorough understanding of research-based pedagogy for music teaching and learning. Three of the most foundational and established principles in music teaching are particularly applicable to the effective and comprehensive teaching of diatonic modes in the college music theory setting: sound before symbol, spiral curriculum, and comprehensive musicianship. The significance of these learning theories deserves a comprehensive illustration with an emphasis on their current and potential applications in music theory pedagogy.

Sound Before Symbol

“All learning begins with the ear, not the eye, and learning music is no exception.” These are the words of Edwin Gordon (2012, p. 26), respected music education researcher and author of the highly respected *Music Learning Theory* (MLT), referencing the essence of the foundational pedagogical principle known as *sound before symbol* (or *sound before sight*) that serves as the basis for his research-supported and widely-accepted explanation of music learning. As Rutkowski (2005) succinctly states, “a very simplistic description of Gordon’s Music Learning Theory might be ‘sound before sight’ and ‘meeting the individual musical needs of every student’” (p. 333). *Grove Music Online* recognizes the pedagogical significance of MLT, confirming that “the theory has led to international development of music teaching material for students of different ages in diverse settings” (Humphreys, 2014, para. 1).

While seminal to Gordon’s MLT and a plethora of best-practice approaches in music education, sound before symbol actually has even deeper roots. As part of the foundation for his comprehensive approach to teaching music literacy, *Sound Connections*, Ester (2010) provides a detailed review of this knowledge base:

[This] fundamental principle of instructional sequencing is common to the theories, methods, and strategies employed by Kodály, Orff, Suzuki, Gordon, and others. The principle ... is rooted in the tenets of 18th-century educator Heinrich Pestalozzi. Over 150 years later, James Mursell, an influential music psychologist during the first half of the twentieth century, emphasized the significance of this principle in light of then current music research (Mursell & Glenn, 1931). Mursell’s (1958) later writing sustained this pedagogical paradigm, stating that symbols “must be taught always in terms of their musical meanings and in application to musical situations and experiences, never merely

in terms of verbal definitions and arithmetical designations” (p. 153). More contemporary research studies continue to reinforce this standard (Runfola & Swanwick, 2002) and the meaningful learning component of cognition research infers that it is impossible to accurately encode musical symbols absent a prerequisite aural context for their meaning. Clearly, literacy skills develop more efficiently if students acquire an appropriate aural vocabulary prior to encountering symbolic information such as rhythmic and staff note names; once an aural vocabulary is established, known sound patterns can be effectively linked to new symbols. (p. 30)

A crucial component of this sound-first pedagogy is the development of *audiation* skills. Gordon (2012) defines *audiation* as “hearing and comprehending in one’s mind sound of music that is not, or may never have been, physically present” (p. 389). He presents a strongly supported case as part of MLT for the foundational significance of audiation in all music learning:

Audiation is the foundation of musicianship. It takes place when we hear and comprehend music for which the sound is no longer or may never have been present. One may audiate when listening to music, performing from notation, playing “by ear,” improvising, composing, or notating music.

Audiation is not the same as aural perception, which occurs simultaneously with the reception of sound through the ears. It is a cognitive process by which the brain gives meaning to musical sounds. Audiation is the musical equivalent of thinking in language. When we listen to someone speak, we must retain in memory their vocal sounds long enough to recognize and give meaning to the words the sounds represent. Likewise, when listening to music we are at any given moment organizing in audiation sounds that were recently heard. We also predict, based on our familiarity with the tonal and rhythmic

conventions of the music being heard, what will come next. Audiation, then, is a multistage process.

Through development of audiation students learn to understand music. Understanding is the foundation of music appreciation, the ultimate goal of music teaching. (“Audiation,” n.d., para. 1)

Summarizing the indispensable value of audiation to the musician, Gordon (2012) states, “When you are able to audiate, you can learn to create, improvise, and accompany yourself and other musicians with appropriate harmonic progressions.... read and write notation with comprehension. Music becomes your property” (p. 12).

Ester’s approach in *Sound Connections* provides a salient example of the purpose and power of audiation. Synthesizing the principles in Gordon’s MLT, Gagné’s learning theory, and established aspects of cognitive processing, Ester developed a skill learning sequence for teaching music literacy that progresses from the most introductory level to the very advanced. This sequence, presented in Figure 4.2, is firmly based in sound-before-symbol pedagogy and begins developing audiation skills immediately. Following Neutral Echoing and Syllable Echoing—both involving basic student imitation of teacher-presented patterns—students learn to apply their emerging audiation skills via echo-translation. This involves literally translating patterns presented by the teacher on a neutral syllable to the proper tonal or rhythm syllables. Successful echo-translation is only possible if the student is actively audiating the patterns and placing them in the proper tonal or rhythmic context. This is, as Gordon describes, “the musical equivalent of thinking in language.” The process of echo-translation simultaneously develops and informally assesses students’ audiation skills.

The Sound Connections Skill Learning Sequence

I. Developing a Sound Vocabulary

1. Neutral Echoing

Teacher presents patterns on a neutral syllable; students echo on the neutral syllable
 Students determine whether two patterns are the same or different
 Short patterns are eventually combined to form series

2. Syllable Echoing

Teacher presents patterns on rhythm/tonal syllables; students echo on rhythm/tonal syllables
 Students label patterns with function names
 Students audiate and sing patterns from Curwen Hand Signs
 Short patterns are eventually combined to form series

3. Echo Translating

Teacher presents patterns on a neutral syllable; students echo patterns using rhythm/tonal syllables
 Students label patterns with function names
 Short patterns are eventually combined to form series

II. Connecting Sound to Symbol

1. Reading

symbol → syllable → sound

Rhythm and tonal reading:

Students learn to read rhythm/tonal patterns, matching new symbols to known sounds
 Initially on rhythm/tonal syllables; eventually on a neutral syllable
 Short patterns are eventually combined to form series (developing visual syntax)

Melodic reading:

Once students can internalize the syllables and separately read rhythm and tonal patterns on a neutral syllable, the patterns are combined and students read melodic patterns

2. Notating

sound → syllable → symbol

Rhythm and tonal notating:

Students learn to notate aural rhythm/tonal patterns via echo translation.
 Initially via audible syllables; eventually via audiated syllables
 Short patterns are eventually combined to form series

Melodic notating:

Once students can separately notate rhythm and tonal patterns, the patterns are combined and students notate melodic patterns

Improvising & Composing

Students should engage in improvising throughout all stages of the sequence

Students can use known aural patterns to improvise, both responsively and independently

Students should engage in composition beginning in Level II.

Students can use known symbol patterns to improvise to create their own compositions

These activities facilitate the internalization of the patterns

Figure 4.2. The Sound Connections Skill Learning Sequence (Ester, 2010, p. 35).

Current applications of sound-before-symbol in music theory pedagogy. Given the well-established and evident value of sound-before-symbol pedagogy and the development of audiation skills to all music learning, it is essential for the purposes of this dissertation to examine the extent of current applications of these approaches in music theory pedagogy. As established previously, the development of audiation skills as part of sound-before-symbol pedagogy is the foundation of comprehensive musicianship and understanding, serving as the basis for a variety of music skills including active listening, improvisation, and literacy. Respected music theory pedagogues clearly indicate that developing these areas constitute the primary goals of the core music theory curriculum. Marvin (2012), in the summary of her article “The Core Curricula in Music Theory: Developments and Pedagogical Trends,” states that “The function [of the core curriculum in music theory], in short, is to develop music literacy and musicianship; all undergraduates should be able to read, write, and perform music with understanding” (p. 263). In his recent article “The Practice of Music Theory, and Music Theory versus Practice,” Burstein (2018) claims:

Whereas the main goal of music performance, composition, and improvisation is to create music that is beautiful, expressive, and inspiring, the main goal of music theory is to deepen understanding of underlying musical forces that give rise to this beauty, expression, and inspiration. (p. 9)

In *Teaching Approaches in Music Theory*, Rogers (2004) emphasizes that theory training should develop “the competence to use our thinking ability to improve listening and our listening ability to improve thinking” (p. 12).

Rogers’ two components of Thinking (mind training) and Listening (ear training) are clearly reflected in the typical collegiate music theory curriculum via (hopefully) complementary

but separate components: written theory classes and aural skills sessions. Clearly these two components focus on symbol and sound, respectively, but how does actual instructional sequencing in the typical music theory curriculum reflect (or not) sound-before-symbol pedagogy? Rogers appears to recognize the direct and important application of developing audiation skills in the collegiate aural skills setting, stating that the goal of aural skills training is to develop students' "internal musical perception—the ability to hear musical relationships accurately and with understanding.... The sound-into-notes and notes-into-sound transference might be described as developing the understanding ear and the hearing mind" (p. 100). While the interdependence of mind training/thinking and ear training/listening cannot be overemphasized, this does not reveal whether he supports a sound-first approach. He appears to recommend mind training before ear training—a sight-first approach—when he states that "it is probably easier to achieve intellectual comprehension than aural comprehension" (p. 33). In fact, this seems to accurately reflect present common practice in music theory instruction in the collegiate classroom. "Most schools report a five-day-a-week theory core, often with Monday/Wednesday/Friday devoted to harmony and analysis and Tuesday/Thursday to aural training" (Marvin, 2012, p. 259). As a result, the typical undergraduate 4- or 5-semester music theory sequence consists of three mind-training and two ear-training classes each week, reflecting a default emphasis and priority on sight/symbol despite the recognition of the profound importance of aural skills. This is, of course, at odds with what Gordon's research-based music learning theory identifies as best practice.

What might explain this apparent mismatch between current practice in music theory pedagogy and established music learning theory? According to Deborah Rifkin and Philip Stoecker, the authors of "A Revised Taxonomy for Music Learning" published in a 2011 issue of

Journal of Music Theory Pedagogy, “aural skills pedagogy has been a woefully neglected area of study in modern American colleges, universities, and conservatories” (p. 156). While referencing a notable exception of value—two publications by Gary Karpinski: *Aural Skills Acquisition* (2000) and *Manual for Ear Training and Sight Singing* (2007)—they seek to address this serious limitation with a revised taxonomy of learning for music aural skills classes. Applying concepts associated with Bloom’s taxonomy for the cognitive domain (1956) and the recently updated version by Anderson and Krathwohl (2001), their taxonomy of learning for music aural skills classes “provides a generalized learning theory based upon Karpinski’s recommended techniques.... [and] provides a framework for designing and implementing best practices in aural skills pedagogy that can be adopted to suit any curricular needs” (p. 157). It is quite significant that they use Karpinski’s ideas as a basis for their revised taxonomy given that Karpinski based his suggested approaches on current research in the areas of cognition and perception, including research supporting the importance of sound before symbol and audiation.

Karpinski (2000) states that “an important goal in the development of musical skills is the ability to think *in* music” (p. 4). He eventually labels this ability: “This process of hearing music mentally in the absence of the physical sound will hereafter be referred to as ‘auralizing’” (p. 49). Intriguingly, Karpinski does not use the word *audiate* here, which had been in the pedagogical vocabulary for 25 years by the time he wrote his book. In fact, in an extensive footnote related to his first introduction of *auralizing*, Karpinski makes a distinction between the two terms:

Martin (1952) defined the verb “auralize” somewhat similarly as “to form a mental impression of sound not yet heard” and noted that “auralize” and “auralization” are “the counterpart in hearing to the terms ‘visualize’ and ‘visualization’ in seeing” (p. 416). It

seems that the term “auralize” first appeared early in the twentieth century. Matthey (1913) referred to “the ability keenly to visualise, or auralise things apart from their actual physical happening outside of us” (p. 10). Robinson (1918, 20) defined “auralized” as “conceived by the ear,” perhaps more similar to Larson’s “to hear as,” which he defines as “to give meaning to a sound by (subconsciously) assigning it to a category” (Larson 1993a, 70). Compare Edwin Gordon’s neologism “to audiate,” which he defines as to “hear and comprehend music for which the sound is no longer or may never have been physically present” (Gordon 1993, 13). These uses (Robinson, Larson, and Gordon) combine auralization and understanding—which the current definition of “auralize” allows us to examine as separate phenomena. (p. 49)

Karpinski is specifically clarifying his position that to *auralize* is simply to hear music internally, while to *audiate* is to hear internally *and comprehend/understand*. So, for Karpinski, auralizing does not include any comprehension. This distinction assumes that listeners either understand or they do not when hearing music internally, rather than the existence of a continuum of understanding. To use Karpinski’s chosen analogy with visualization, it would mean that a visualized image in the mind happens completely disconnected from *any* understanding of the image. It does not seem that Karpinski himself has a conception of what this means for auralizing given that in the very next paragraph and beyond he begins describing aural events that require some level of understanding; he does not appear to provide an example of this internal hearing without understanding. Adding to the confusion, *auralization* is a term that had been adopted by the field of audio engineering a decade before Karpinski’s book. The usage includes computer modeling for the purposes of architectural acoustics (“Auralization”, n.d., para. 1). Examining current usage of the terms, a simple Google search of the two terms leads to

two very different results: virtually all *auralization* references are in the field of acoustics, while *audiation* references are consistently in the areas of pedagogical research and practice related to music. Simply stated, the usage of *audiation* is very consistent while the usage of *auralization* is quite mixed. Corroboration of this observation comes in the need for a 2008 forum in *The Journal of the Acoustical Society of America* titled “What exactly is meant by the term ‘auralization?’” (Summers, 2008). Regrettably, the article seems to muddle the issue further. Regardless, *audiation* is clearly the more accurate and commonly used term over several decades for this crucial musical skill, so it is the term used in this dissertation to avoid confusion. Nevertheless, Karpinski’s pedagogical recommendations merit consideration in light of the implications of sound-before-symbol pedagogy.

Karpinski’s (2000) influential book, *Aural Skills Acquisition*, focuses rather specifically on melodic dictation and breaks this process down into four stages:

1. Hearing: the ability to pay sufficient attention, as well as the physical and neurological capability to perceive sounds appropriately;
2. Short-Term Melodic Memory, which is limited but can be extended through extractive listening and chunking;
3. Musical Understanding, or the ability to label or describe remembered musical materials;
4. Notation: familiarity and facility with music notation. (p. 64)

Because of the nature of the sound-TO-symbol dictation process, it is clear that a sound-first approach is required, and this is an important implication of Karpinski’s pedagogical recommendations. Rifkin and Stoecker (2011) sought to revise and adapt Karpinski’s taxonomy for broader purposes: “By designing a learning taxonomy similar to Karpinski’s outline of the dictation process, we aim to generalize his pedagogical principles so that they can be applied to

other pedagogical pursuits in the aural skills classroom” (p. 163). As a result, they are recommending broadening the application of this sound-first approach to general aural skills instruction. Building on the Bloom/Anderson/Krathwohl taxonomy and synthesizing Karpinski’s, Rifkin and Stoecker developed a model with six learning stages: 1) recognize, 2) imitate, 3) conceptualize, 4) apply, 5) improvise, and 6) evaluate. Notably, they rename the first stage, changing it from Anderson and Krathwohl’s *Remember* to *Recognize*, specifically because “when a listener recognizes or recalls that a musical pattern has repeated, this cognitive act is a specialized type of remembering that centralizes the aural event” (p. 160). This is clearly a recognition of the importance of audiation skills. They also modified the name of Stage 2 from *Understand* to *Imitate*, claiming that “in music, the main method for classifying, identifying, and describing events is to perform them back, to imitate them” (p. 161). Here, it appears they are not quite considering the true implications of audiation or need to reconsider the order. Audiation requires understanding, which is much more than imitation. The imitation comes first, and then this must develop into deeper understanding for effective ear training. Ester’s sequence of syllable echoing and then echo-translating is the more accurate example of these first stages of the sound-first approach. Rifkin and Stoecker may be considering this to happen in Stage 3, *Conceptualize*. They write:

To conceptualize a musical event is to analyze it and create a way to concretize it in one’s mind. Often, this type of conceptualization is built around musical expectations. In tonal music, pitch expectations are commonly modeled by scale-degree function (e.g., moveable do solfège). (p. 161).

So, while the order and/or labeling of their stages is worthy of reconsideration in light of sound-before-symbol pedagogy and the process of audiation, Rifkin and Stoecker’s music taxonomy is

a very welcome addition to, as they themselves claim, the “woefully neglected area” of aural skills pedagogy—continuing the important and needed precedent of Karpinski, who recognized the need to update and improve aural skills pedagogy by building on a foundation of perception and cognition learning theory and research. Most recently, Chenette (2018) has connected Karpinski’s ideas with the well-established cognitive-processing concept of *working memory*. Importantly, in his article “Reframing Aural Skills Instruction Based on Research in Working Memory,” Chenette recognizes that “we must sacrifice the simplicity of understanding [Karpinski’s] process as a series of separable components.... we must now understand the four components as different windows into an essentially unified system [of working memory]” (p. 17). This again reinforces the process of audiation (as opposed to auralization), which unifies internal hearing with comprehension. Notably, this relationship of working memory and audiation is foundational to Ester’s (2010) approach in *Sound Connections*, which he explains in detail (see Ester, 2010, p. 19).

Overall, it seems that the integration of sound-before-symbol pedagogy is only in the relatively early stages of integration into the aural skills curriculum and, more significantly, the theory curriculum continues to reinforce the isolation of sound (aural skills) from symbol (written theory) as a result of the common scheduling. It is perhaps fair to label this closer to sound-versus-symbol than sound-before-symbol. The approach recommended in this dissertation to the teaching of diatonic modes will serve as a model of integration rather than isolation—of sound before and then connected to symbol—that may eventually be applied more broadly across the curriculum. The following sections addressing spiral curriculum and comprehensive musicianship will provide additional important guidance on how this can best be accomplished.

Spiral Curriculum

In 1959, responding to the Soviet Union's launch of the Sputnik satellites and fearing that the United States was falling behind in the areas of science and technology,

Physicists, biologists, mathematicians, historians, educators, and psychologists came together [in Woods Hole, Massachusetts] to consider anew the nature of the learning process, its relevance to education, and points at which current curricular efforts have raised new questions about our conceptions of learning and teaching. (Bruner, 1960, p. 2).

The Woods Hole Conference focused on teaching methods and curriculum design, primarily in the elementary and secondary schools. While the 10-day conference concluded without participants reaching a consensus, the conference chairman, Jerome Bruner, authored *The Process of Education* (1960) as “a selective account of what in his view were the major themes, the principal conjectures, and the most striking tentative conclusions reached” (p. xii). According to Bruner, the book “represents a set of views that grew out of the Conference and intense correspondence that followed it” (p. xiii). In this now-classic argument for curriculum reform, Bruner focused on four primary themes: 1) the role of structure in learning, 2) readiness for learning, 3) the nature of intuition, and 4) the desire to learn and how it may be stimulated. As part of the section on readiness for learning, Bruner posited that “the foundations of any subject may be taught to anybody at any age in some form” (p. 12) and that:

A curriculum as it develops should revisit these basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them. There is much still to be learned about the spiral curriculum that turns back on itself at higher levels. (p. 13)

With these two basic tenets, Bruner introduced the concept of *spiral curriculum*. His comment that “much must still be learned about the spiral curriculum” could not have been more prescient. It is unlikely that he would have predicted the impact of this pedagogical theory (and his other constructivist ideas) on the next generation of educators—or just how much *has* been learned. Johnston (2012) provides a list of the key features and benefits that are widely recognized 50 years after Bruner introduced the concept:

Key features of the spiral curriculum based on Bruner's work are: (1) The student revisits a topic, theme or subject several times throughout their school career; (2) The complexity of the topic or theme increases with each revisit; and (3) New learning has a relationship with old learning and is put in context with the old information.

The benefits ascribed to the spiral curriculum by its advocates are: (1) The information is reinforced and solidified each time the student revisits the subject matter; (2) The spiral curriculum also allows a logical progression from simplistic ideas to complicated ideas; and (3) Students are encouraged to apply the early knowledge to later course objectives.

Although there is no clear empirical evidence of the overall effects of the spiral curriculum on student learning, "features" of that curriculum have been linked to improved learning outcomes. In addition, the spiral curriculum incorporates many research-based approaches from cognitive science that have been linked, individually, to improved student performance as well. (para. 1)

While the original concept of spiral curriculum (and spiral learning) evolved from Bruner's theories related to elementary and secondary education in general and children's developmental learning in particular, the pedagogy is now ubiquitous across age levels and content areas. This is

most certainly the case in K-12 music education, and evidence of its application in the collegiate music theory curriculum is emerging.

Current applications of spiral curriculum and learning in music theory pedagogy. Given the cross-curricular adoption of spiral curriculum and learning by educators in the past half-century, it is not surprising that it is being applied in music theory instruction. Rogers recognized in 2004 that the concept of spiral learning had been integrated into some music theory textbooks:

An automatic review mechanism can be designed into a course or a whole theory curriculum by drawing on concepts already mentioned earlier in the semester or program so that the same few ideas can be constructively recycled again and again at increasingly sophisticated levels. Some textbooks have this *spiral-learning* technique built into their structure. This is highly desirable since it forces selection of central concepts on which a course can be erected. (p. 57)

Published articles over the past two years provide specific examples of spiral learning in the music theory curriculum. In her article “What I Know Now: Reflections on Music Theory Pedagogy,” Marvin (2018) concludes with a discussion of spiral learning, particularly in a repertoire-driven curriculum:

Another way to plan a trajectory for a new topic is via “spiral learning.” ... A spiral approach introduces a broad topic early in the course and then returns to it several times over the semester or year, adding layers of detail or complexity.... A spiral design provides students with a framework for new ideas and continuity across the semester or year.... Spiral learning can also be used with repertoire, with the class returning to a composition over time to add new layers of understanding. (pp. 374-375)

Marlowe (2017) also discussed the application of spiral learning strategies in “Integrating Schenkerian Concepts with the Undergraduate Theory Curriculum.” She recommends an approach that includes seven detailed lesson plans spaced over several semesters, emphasizing spiral learning to facilitate the introduction of complex topics to younger students. Parallel to the ideas of West and quoting Rogers, Marlowe suggests that “revisiting the same piece at various stages in the curriculum is a type of *spiral learning*, which Rogers describes as the process of ‘drawing on concepts already mentioned earlier’” (p. 57).

A compelling argument for including diatonic modes as a part of the collegiate music theory curriculum is actually inherent in the roots of spiral curriculum. Expanding on Bruner’s conceptualization of spiral curriculum as part of the overall curriculum development process, Willoughby (1971) emphasized the importance of identifying the *essential nature* of a discipline:

Assuming that the educational process is guided growth (a concept derived from developmental psychology), then the curriculum should be organized in such a way that a developmental continuity of experiences takes place. This assumes that there is an essential nature to each discipline of human knowledge which remains unchanged at all levels of maturity; it retains its distinctive, basic character at all points within the educational continuum. The curricular problem is to determine for a given discipline this essential nature, then set up conditions for its application as an educational process at each successive educational level. A curriculum founded on the essential nature of each discipline, then, should include those issues, concepts, or principles that, when fully developed, are worth an adult’s knowing and that a society considers worthy of continual concern.” (p. 11)

Rogers reinforced this identification of essential natures premise for music theory with his observation that the integration of spiral-learning into theory textbook structures is important because it requires the selection of the central concepts for a course and curriculum. The concept of mode would certainly be considered part of the essential nature and a central concept of Western music. As stated earlier in this chapter, it is the historical significance of mode in Western music theory as well as the richness and versatility of modal compositions that make mode one of the most quintessential elements in Western music. It is important, therefore, to introduce this concept from the beginning, providing a broad foundation to build on as learning progresses. Ideally, this is introduced in the K-12 music classroom so that students arrive as collegiate music majors able to sing and label each of the diatonic mode scales (certainly easily accomplished using the rotational approach with la-minor). Many first-year undergraduates, however, arrive with a very limited grounding in music theory. This makes the spiral learning approach in the undergraduate theory curriculum particularly important, starting with the basics in a sound-before-symbol approach and then building sequentially on this base with a repertoire-driven approach—using a core of modal repertoire as consistent resources throughout the spiral.

Comprehensive Musicianship

The year of this dissertation, 2019, marks the 60th anniversary of not only the Woods Hole Conference and the birth of spiral learning pedagogy but also the roots of *comprehensive musicianship* (CM)—a profoundly impactful educational movement that has continued to broaden and deepen over the decades. Willoughby (1971), Administrative Associate of the Contemporary Music Project (founding organization of CM) from 1970 to 1973, summarizes the concept in an oft-quoted description:

Comprehensive musicianship is a concept about teaching and learning music. It is an approach that suggests that the source of all musical study is the “literature” of music and is one that promotes the integration of all aspects of music study—whether in the classroom, in private or group lessons, or in ensemble rehearsals—at all educational levels. This approach provides a focus for an entire music curriculum, enabling students to synthesize material and to see relationships in all that they do. It makes possible more complete musical experiences. (p. vii)

Beginning with educational reform initiatives in the post-Sputnik era, comprehensive musicianship (CM) has an impressive legacy and evolution. Figure 4.3 presents an overview of this heritage.

As Willoughby reflects in a 1990 article:

Comprehensive musicianship stresses the following concepts, applicable at all educational levels:

1. The development of competencies in creating music, performing music, and critical listening and analysis;
 2. Experience with the totality of musical styles—particularly those in the twentieth century, and a wide variety of non-Western styles—brought into a common frame of reference by the common-elements approach to terms and principles found in all music;
 3. The integration of content and musical experiences;
 4. The students’ active involvement in the application of concepts with emphasis on music making and discovery, rather than on routine memorization and passive learning environment.
- (p. 39)

1959 Founding of the Contemporary Music Project

(also referred to as the Young Composers Project)

- Philosophical principle: Students enrolled in any music class should engage in performing, analyzing, and organizing music.
- Sponsored by the Ford Foundation and administered by Norman DelloJoio and Grant Beglarian.
- Placed composers in the public schools for the purpose of composing for the school's performance ensembles.
- Students in these ensembles shared in the creation and compositional process of new works created by the composers in-residence.

1963 The Yale Seminar

- Sponsored by the U.S. Office of Education
- Sought to both broaden the repertoire for study in schools and deepen the experience through more comprehensive study.
- Performing, composing, listening, and movement were described as the building blocks of musicality.

1965 The Comprehensive Musicianship Seminar, Northwestern University

- Organized to re-evaluate and improve the musical education of teachers by looking at the content and orientation of required college core courses in music theory and history.

1965 Manhattanville Music Curriculum Project

- Developed a spiral sequence of activities (cycles) aimed at developing comprehensive musicians who could improvise, compose, perform, listen and describe, and understand their work in a larger context.

1967 The Hawaii Comprehensive Musicianship Program

- Provided a series of courses for grades K-12 based on selected literature complete with objectives, teaching strategies, materials, activities, additional repertoire, and evaluation.

Late 1960s

Initial Implementation of CM in Collegiate Music Curricula

1972 Publication of *Teaching Musicianship in the High School Band*

- Joseph Labuta applied some of the CMP principles to the daily tasks of teaching high school band.

1976 Publication of *Blueprint for Band*

- Robert Garofalo put comprehensive musicianship into a band directors' template that included the performance of a composition surrounded by understanding of the structural elements, knowledge of music as a creative art form in a historical context, and aural, dexterous, and translative skills.

1977 Wisconsin Comprehensive Musicianship through Performance Project

- Initiated as a means of promoting “performance with understanding” in middle and high school band, choir, and orchestra programs. A 5-step model for planning instruction was developed. As with all CMP approaches, the emphasis is on the interdependence of performing and learning.

Figure 4.3. Evolution of Comprehensive Musicianship (primary resource: “Background,” n.d.).

As is evident in Figure 4.3, the primacy of repertoire is a theme from the inception of CM and throughout all of the various applications and evolutions. This reaches its most defined level in 1977 with the Wisconsin *Comprehensive Musicianship through Performance* Project (CMP). While CM is more of a pedagogical philosophy, CMP has evolved into a specific model for the instructional process in the ensemble rehearsal setting:

The CMP Model was developed through a careful examination of the teaching/learning process in music performing groups. The learner and the music are central to the CMP planning process.... In the CMP process, the rehearsal is seen as a laboratory where students can develop an understanding of musical concepts such as expression, melody, rhythm, harmony, texture, timbre and form by being involved in a variety of roles including performing, improvising, arranging, composing, conducting, and analyzing music. (“Comprehensive,” n.d., para. 2 & 4)

The CMP Model includes five components: Selection, Analysis, Outcomes, Strategies, and Assessment. Figure 4.4 presents a summary of the purposes of each of these 5 components (Ester, 2013). It is important to note that the sequence of implementation of the components is not fixed: “Though the five components of the model are equally important, planning instruction can begin at any of the points.... Assessment is appropriate before, during, or after the process of study” (“Comprehensive,” n.d., para. 4). Despite being conceived and designed as an instructional approach in the ensemble setting, the CMP Model has applications in the music classroom setting, as well. With its roots in CM, the selection of repertoire remains paramount. One of the primary stated principles of the CMP Model is as applicable in the music theory classroom as in the ensemble rehearsal hall: “the selection of music is often a starting point for planning but the decision about what music to use may be based on assessment of student needs

or previous learning” (“Comprehensive,” n.d., para. 4). As a result, the five-component model of CMP can actually serve well as a guide for planning and instruction in the college music theory classroom.

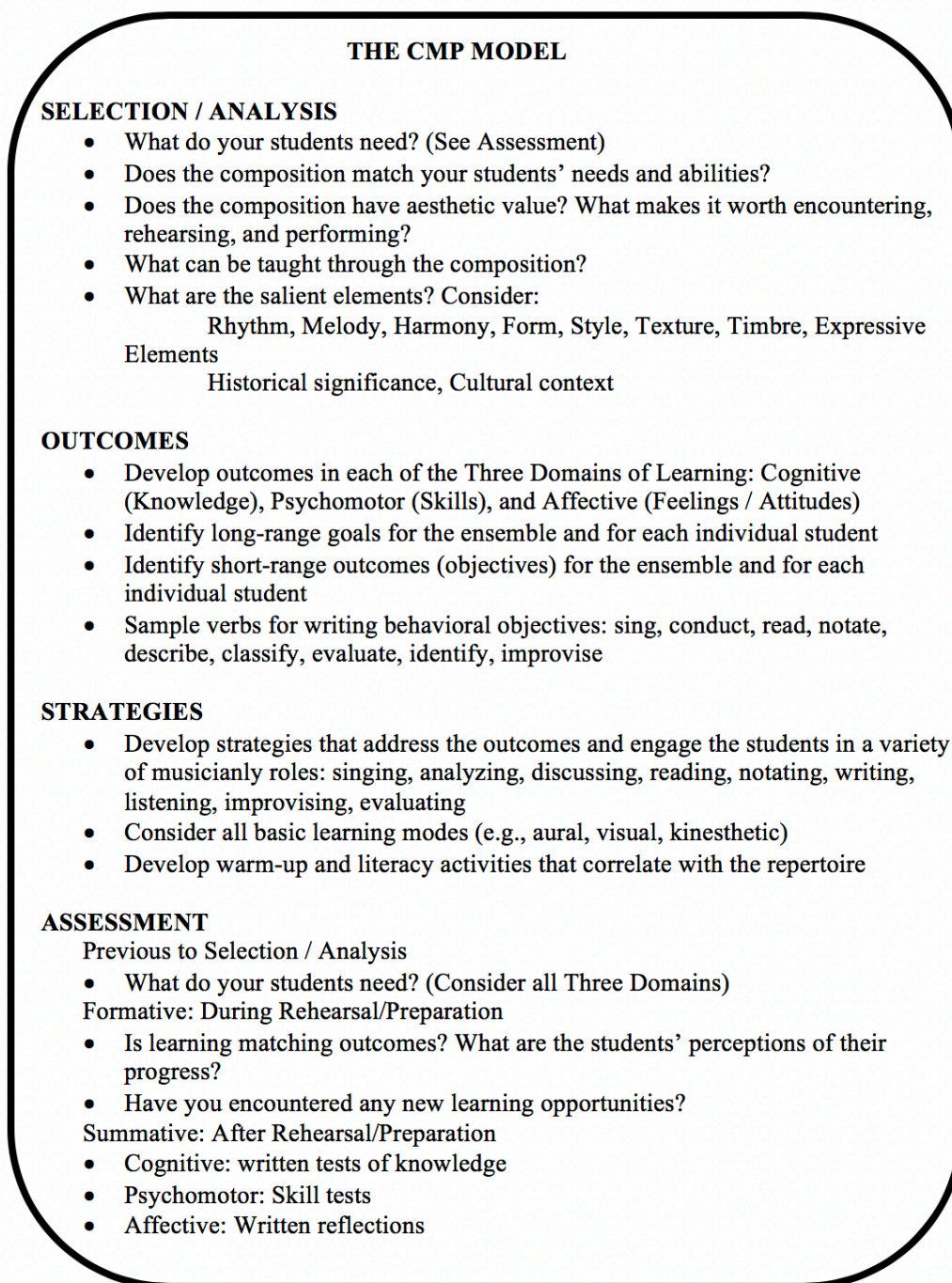


Figure 4.4. Applying the CMP Model (Ester, 2013).

Current applications of comprehensive musicianship in music theory pedagogy. Because “most of the applications of CM principles were in theory and general music classes” (Willoughby, 1990, p. 40), it should not be surprising that a lot has been written over the six decades since the inception of the CM Project about the value of this approach in the college music theory curriculum. Willoughby himself wrote extensively on this in his 1971 article, “Comprehensive Musicianship and Undergraduate Music Curricula”:

The critical period in higher education is the first two years of the undergraduate program. It is critical because much of what is called “basic musicianship” is acquired in those years and is often the last time all classes are comprised of students pursuing differing musical objectives. Thus, the CMP program would focus on initial courses in “theory,” “history,” and similar basic studies in music. (p. xi)

The development of aural acuity and music reading abilities should be made more relevant to the needs of students. This can be accomplished to a greater degree if sight singing and ear training courses are incorporated into the comprehensive musicianship sequence where students can perceive relationships and can apply skills in more complete musical experiences.... Music should be the primary source for all learning experiences whether cognitive, aesthetic, or technical; books about music should be used as supplementary material. Thus, adhering strictly to a single, traditional “theory” text should be rejected. (pp. 73-74).

Nearly a half-century later, Marvin (2018) emphasizes the continuing influence of CM in music theory pedagogy. In “What I Know Now: Reflections on Music Theory Pedagogy,” she shares six pedagogical ideas organized around two guiding themes: focusing on music and musicianship and planning for student-centered engagement. One of these is to “Teach with a CMP mindset”:

The CMP movement provides powerful lessons for today's teachers. It reminds us that pieces of music do not exist in a vacuum.... The spirit of comprehensive musicianship can live on, even in a more traditional divided curriculum, if we keep its laudable tenets in our minds and hearts. (p. 370)

It is important to note Marvin's recognition of the "spirit of comprehensive musicianship ... in a more traditional divided curriculum." Her reference here is to the earlier experimental approach of combining music theory and history into the same course taught by an individual instructor. This was an approach that was rather hotly debated, as evidenced in Silliman's 1980 article, "Comprehensive Musicianship: Some Cautionary Words." Silliman identified four areas in which comprehensive musicianship must apply caution; one of these was "encroachment on areas such as history which may be served better as distinct entities" (p. 129). Rogers (2004) addresses this issue in *Teaching Approaches in Music Theory*, as well:

It would be best if CM were defined as a teaching method rather than as a way of naming courses or organizing curriculums.... The real danger is not isolated courses but isolated learning... Like integration of aural and written skills, CM is a teaching style that transcends curriculum design. (pp. 23 and 25)

This theme of integration rather than isolation is the essence of the CM philosophy. Ironically, as discussed previously, the isolation of mind-training from ear-training is a fundamental concern facing current music theory curricula. This issue can be alleviated, or at least mitigated, by adopting a CMP mindset, as Marvin encourages, and building lessons around a series of focus repertoire. This requires a change in perspective for many instructors, however, and as Willoughby (1990) observes:

Any approach to teaching and learning that demands an expansion of attitudes and knowledge, that requires continued study and contemplation about music and music learning, and that involves extensive risk-taking and perhaps failure intimidates many teachers. The tendency is to carve out a comfortable rut and feel cozy in the security of the known and proven. (p. 44)

The five-component CMP Model offers a template that can facilitate this challenging transition to a new approach: Selection/Analysis of appropriate repertoire followed by the development of specific Outcomes, planning correlated instructional Strategies, and employing effective Assessment. The remainder of this chapter will focus on the first two components as they interact with the teaching of diatonic modes—the Selection/Analysis of repertoire that will serve as the musical resources for effective instruction of the modes. Chapter 5 will then address in detail the other three components of Outcomes, Strategies, and Assessment.

Focus Repertoire

As indicated in the CMP Model, “Though the five components of the model are equally important, planning instruction can begin at any of the points” (“Comprehensive,” n.d., para. 4). In the context of this dissertation, the general Outcome has been determined first: teaching diatonic modality in the college music theory curriculum. Then, because “the learner and the music are central to the CMP planning process” (“Comprehensive,” n.d., para. 2), the Selection/Analysis of correlated repertoire is the next step in the curricular planning process. Willoughby (1971) provides some very important observations to guide this selection process:

By definition, comprehensive musicianship suggests the study of a wide variety of musical styles, including not only Western art music from chant to the present but other

types of Western and non-Western musics. This implies a breadth of study but does not reject depth; priorities of curricular emphasis must be determined by each teacher. (p. vii)

Basic music studies must be considered a segment of world culture. The study of music can no longer be provincial, devoted only to “classical” music of the Western world, or even to that relatively short segment of the spectrum of music history: the “common practice” period. The rigidity of bodies of knowledge to be covered in music courses must be rejected and new priorities established. (p. 72).

This is particularly significant in light of the premise of this dissertation: The need to expand beyond the limited focus on the major/minor scalar system and include all modes to better reflect their historical ubiquity—from plainchant to pop, chanson to Chávez, folk to Fauré, Josquin to jazz, Bartok to Bernstein, and blues to Broadway. A diverse collection of repertoire representing a variety of genres, styles, historical periods, and cultures that feature each of the diatonic modes will provide the crucial foundation for effective instruction.

A core of modal repertoire was identified as a result of extensive research and analysis with a focus on quality, breadth, diversity, and pedagogical application. This core repertoire includes folk songs, hymns, wind instrument and vocal solo repertoire, piano repertoire, and choral and orchestral works that exemplify each of the diatonic modes. While the Selection/Analysis approach was firmly grounded in the CMP Model, the process also applied principles of sound-before-symbol and spiral learning.

Once a work was identified as a representative modal composition of quality, consideration was given to where it could best serve on the sound-before-symbol continuum. For example, simple and melody-dominant compositions are typically better examples to introduce initially in the aural skills setting, especially if the melodies are primarily conjunct and the modal

scale elements are evident. This allows for a sound-first approach—even the opportunity to have the students sight-sing the melody—leading to complementary visual analysis as part of written theory. Contrastingly, harmonically complex works are often best encountered from a visual perspective, perhaps initially listening to an excerpt as an instructional teaser but then focusing on score analysis before listening again with a more informed context.

Principles of spiral learning guided the decision-making related to the sequence of introducing each composition in the curriculum. This interacted with the sound-before-symbol criteria in some respects: simpler works serve as entry-level encounters and are then revisited later in the curriculum, facilitating both the reinforcement of basic concepts and the introduction of more complex ideas. Several works by Vaughan Williams play this role in the curriculum due to their integration of modal folk melodies and also more advanced compositional characteristics.

Repertoire Tables

The core repertoire selected for the teaching of diatonic modality in the college music theory curriculum is presented in a series of tables. Tables 4.6 through 4.11 present the core repertoire by mode in the order they will be introduced in the curriculum: Aeolian, Dorian, Mixolydian, Phrygian, Lydian, and Locrian. Each of these tables has three columns and is organized alphabetically by composer, with unattributed selections (e.g., folk songs) listed first. In addition to the composer's name, the first column includes the title, genre, and score/audio source. The second column references salient theoretical characteristics relevant to the music theory curriculum in general, facilitating the introduction or review of other concepts. The third column focuses on pedagogical applications specific to diatonic modes, including the level or levels in the curricular sequence and the composition's application in aural skills and/or written

analysis components. The levels correlate with the common curricular structure of the undergraduate music theory core curriculum identified in Chapter 2:

Levels 1-2: Fundamentals

Levels 3-4: Harmony (Diatonic & Chromatic)

Levels 5-6: Twentieth-Century Music Theory

Levels 7-9: Advanced Theory Courses: Form and Analysis, Counterpoint, Arranging

Collectively, Tables 4.6 – 4.11 serve as the foundation for the sequential curriculum in Ch. 5 and as a general resource for all music theory instructors interested in exposing their students to a broader range of repertoire outside of the restrictive major/minor paradigm.

Table 4.6

Core Repertoire in the Aeolian Mode

Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
<p><i>God Rest You Merry, Gentlemen</i> English traditional Christmas carol</p> <p>Score available at CPDL; IMSLP</p>	<ul style="list-style-type: none"> • Aeolian • Gustav Holst's choral fantasy <i>Christmas Day</i> includes this song along with another carol, <i>Good Christian Men, Rejoice</i>. (It modulates from E-flat to G and to B, then back to E-flat, an augmented chord contour modulation) 	<ul style="list-style-type: none"> • Level 1: Familiar melody for aural identification and sight-singing • Levels 3-4: Harmonize the tune with/without the leading tone (harmonic minor or natural minor/Aeolian)
<p>Vaughan Williams: <i>Ten Blake Songs</i>, song cycle for high voice and oboe. No. 5. The Lamb, for Tenor and Oboe. Score available at IMSLP</p>	<ul style="list-style-type: none"> • F-Aeolian with four-flat key signature (regular F-minor key signature) • Oboe part occasionally has raised-sixth, D-natural in this case, which indicates the Dorian flavor 	<ul style="list-style-type: none"> • Levels 1-2: Fundamental Aeolian study example • Folk melody is good for aural identification and sight-singing • Voice and oboe countermelodies can be used in two-part sight-singing
<p>Vaughan Williams: <i>6 Studies in English Folksong</i> (1926) for cello (clarinet) and piano. No. 3. Score available at IMSLP</p>	<ul style="list-style-type: none"> • D-Aeolian (E-Aeolian for clarinet) • Standard phrase structure (Level 2) • Piano counterpart is interesting (counter melody, harmonization) • Picardy third at the end 	<ul style="list-style-type: none"> • Levels 1-2: Solo melody is good for sight-singing (easy, written in Bass clef) • Solo and counter melodies together can be good for two-part sight-singing • May revisit for later studies (phrase structure, Picardy third; counterpoint)
<p>Vaughan Williams: <i>Boy Johnny</i> (1902), setting text by Christina Rossetti, for voice and piano. Score available at IMSLP</p>	<ul style="list-style-type: none"> • E-Aeolian (one-sharp key signature) • Change of time signature between 4/4 and 3/4 • Harmonization: chord progression modulates from minor to major (E-minor to G-major) • Modal mixture (Levels 3-4); it starts in E-Aeolian and ends in E major 	<ul style="list-style-type: none"> • Levels 1-2: Fundamental Aeolian study example • Folk melody is good for aural identification and sight-singing (mixed meters) • May reuse later for Levels 3-4 (modulation; modal mixture)

Table 4.6 (continued)	Aeolian Mode	
Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Vaughan Williams: <i>Claribel</i> , for voice and piano. Score available at IMSLP	<ul style="list-style-type: none"> • F-Aeolian (middle section is in F-major) • Beautiful harmonization in the piano part: first section has a brief Phrygian flavor; using sequence when it changes back to F-Aeolian 	<ul style="list-style-type: none"> • Level 3 and beyond: aural identification and general appreciation by listening • Harmonic analysis • Sight-singing material • Individual study material
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Aeolian</i> , No. 1. Hymn to the Death of Balder. Score available at JOMAR Press	<ul style="list-style-type: none"> • E-Aeolian • Harmonic progression specifically for Aeolian mode • v – VI – VII – i; • i – iv – v – i 	<ul style="list-style-type: none"> • Level 4 • Aural identification • Harmonic progression analysis • Harmonic dictation
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Aeolian</i> , No. 3. Feeling Sorry. Score available at JOMAR Press	<ul style="list-style-type: none"> • F#-Aeolian • Harmonic progression • Phrygian cadence at m. 8 • Simple and regular melodic contour 	<ul style="list-style-type: none"> • Levels 4-5 • Harmonic progression analysis and dictation • Harmonize the melodic line • Improvise an Aeolian melody
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Aeolian</i> , No. 4. Riding on a Stormy Night. Score available at JOMAR Press	<ul style="list-style-type: none"> • G-Aeolian • Special harmonic progression for Aeolian mode • Regular 8-measure phrase • Ternary form (A-B-A' - coda) 	<ul style="list-style-type: none"> • Levels 4-5 • Aural identification: RH melody from mm. 17-32 • Harmonic progression analysis and dictation
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Aeolian</i> , No. 7. Sonatina Miniature. Score available at JOMAR Press	<ul style="list-style-type: none"> • C#-Aeolian • C#-G#-C# • Clearly identifiable phrase and form structure with typical harmonic progression 	<ul style="list-style-type: none"> • Level 7 Form analysis • Sonatina/sonata form analysis • Discuss compositional devices and interpretation strategies • Write an essay about this composition
Jody Nagel: “Seven Thirteens” from <i>The Well-Tempered Mode, Songs from the Aeolian</i> , No. 13. Score available at JOMAR Press; Audio performance recorded by the author (See Appendix A)	<ul style="list-style-type: none"> • Frequent modulation with changes of key signatures • G-E-C#-B-flat-G-E modulation contour is a fully diminished seventh chord, which includes two tritones intervals. • Aesthetic value 	<ul style="list-style-type: none"> • Level 7 and beyond • Suitable for graduate study • Available audio recording can be used for aural identification and aural analysis

Table 4.7

Core Repertoire in the Dorian Mode

Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
<i>Greensleeves</i> <i>What Child is This?</i> Score available at CPDL	<ul style="list-style-type: none"> • Dorian/Aeolian • Different versions of this tune exist, which will be a good resource to differentiate Dorian from Aeolian 	<ul style="list-style-type: none"> • Level 1 • Familiar melody for aural identification and sight-singing • Harmonization comparison
<i>Lovely Joan</i> English Folk Song	<ul style="list-style-type: none"> • Dorian • Simple and familiar melody 	<ul style="list-style-type: none"> • Level 1 • Familiar melody for aural identification and sight-singing
Ralph Greaves's arrangement of <i>Fantasia on "Greensleeves"</i> from Vaughan Williams's opera <i>Sir John in Love</i> . Score available at IMSLP	Modal modulation: <ul style="list-style-type: none"> • F-Dorian to D-Dorian • Includes both Greensleeves and Lovely Joan • Transpositional key signature with accidentals 	<ul style="list-style-type: none"> • Levels 1-2 • Solo and counter melodies together can be good for two-part sight-singing • May revisit for more advanced studies in Levels 3-4 (phrase structure, Picardy third; counterpoint)
<i>L'homme armé</i> Renaissance French secular song	<ul style="list-style-type: none"> • Dorian • Renaissance Masses often quote this tune 	<ul style="list-style-type: none"> • Level 1 • Familiar melody for aural identification and sight-singing
<i>Scarborough Fair</i> Traditional English ballad	<ul style="list-style-type: none"> • Dorian 	<ul style="list-style-type: none"> • Level 1 • Familiar melody for aural identification and sight-singing
<i>What Wondrous Love Is This?</i> Christian folk hymn	<ul style="list-style-type: none"> • Dorian • <i>Wondrous Love</i> arranged by Alice Parker and Robert Shaw 	<ul style="list-style-type: none"> • Levels 1-2 • Familiar melody for aural identification and sight-singing
<i>Swallowtail Jig</i> Irish Fiddle Tune	<ul style="list-style-type: none"> • Dorian 	<ul style="list-style-type: none"> • Levels 1-2 • Familiar melody for aural identification and sight-singing
<i>I Love My Love</i> Arranged by G. T. Holst Cornish folksong	<ul style="list-style-type: none"> • F-Dorian • Transpositional key signature with accidentals 	<ul style="list-style-type: none"> • Multiple levels • Level 1 melody only; Level 4 harmony; Level 7 form and structure
Bartok: Mikrokosmos I, No. 31, Little Dance in Canon Form. Score available at IMSLP	<ul style="list-style-type: none"> • D-Dorian (no key signature) • Two-part canon (contrapuntal) • Four 4-measure phrases (the third phrase has the raised sixth scale degree) 	<ul style="list-style-type: none"> • Level 1 Fundamentals • Good for sight-singing (both one-part and two-part singing) • Good for aural identification • May use it as melodic dictation as well

Table 4.7 (continued)	Dorian Mode	
Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Bartok: Mikrokosmos I, No. 32, In Dorian Mode	<ul style="list-style-type: none"> • D-Dorian (no key signature) • Picardy third at the end • Contrapuntal (two-voice) • Two 7-measure phrases (elision) 	<ul style="list-style-type: none"> • Level 2 • Two-part duet sight-singing • Possible two-part melodic dictation • Aural identification • Transpose to other Dorian keys
Debussy: Nocturnes, No. 2, Fêtes Score available at IMSLP	<ul style="list-style-type: none"> • F-Dorian • The opening theme played by English Horn and Clarinet is in Dorian mode 	<ul style="list-style-type: none"> • Level 5: 20th-century music theory and aural skills
Fauré: 2 Songs, Op.83, No. 1, Prison Score available at IMSLP	<ul style="list-style-type: none"> • E-flat Dorian • Transpositional key signature with accidentals • The opening has a Dorian flavor; after chromatic progression in the middle of the song, the ending has a Phrygian flavor 	<ul style="list-style-type: none"> • Levels 4-5 • Score study: mode identification; harmonic analysis; text painting • 20th-century modal repertoire analysis • Aural identification
Nagel: <i>Twelve Easy Little Pieces in Twelve Different Modes</i> , No. 7. March of the Toy Horses. Score available at JOMAR Press	<ul style="list-style-type: none"> • C-Dorian • No key signature marking; uses accidentals • Melodic contour emphasizes the character of Dorian scale 	<ul style="list-style-type: none"> • Level 2: Aural identification • Ask students to rewrite the melody by using the rotational key signature • Melodic line can be used in dictation practice
Nagel: WTM, <i>Songs from the Dorian</i> , No. 1, Breeze. Score available at JOMAR Press	<ul style="list-style-type: none"> • A-Dorian • Transpositional key signature with accidentals • Contrapuntal 	<ul style="list-style-type: none"> • Level 2: Sight-singing (modified according to range) • Level 5 and beyond: Counterpoint study
Nagel: WTM, <i>Songs from the Dorian</i> , No. 3, Moderato. Score available at JOMAR Press	<ul style="list-style-type: none"> • B-Dorian • Transpositional key signature with accidentals • Pastoral melody • Harmonic progression for Dorian: i-IV 	<ul style="list-style-type: none"> • Levels 2-3: Aural identification (melody only) and sight-singing • Improvise another Dorian melody based on the given piece

Table 4.7 (continued)	Dorian Mode	
Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Nagel: “Seven Thirteens” from WTM, Songs from the Dorian, No. 13, Circular Reasoning Score available at JOMAR Press Audio performance recorded by the author (See Appendix A)	<ul style="list-style-type: none"> • Frequent modulation to different Dorian modes • Typical traditional phrase structure • Tritone emphasis: tritone relationship and application in the 20th century music theory—fully diminished seventh chord; French Augmented Sixth chord; and Z-cell 	<ul style="list-style-type: none"> • Advanced aural identification (last-semester Aural Skills and beyond) • A suitable example for the study of modal composition by 20th and 21st century composers (contemporary compositional techniques) • Study the significance of the tritone relationship and its application
Vaughan Williams: <i>Ten Blake Songs</i> , No. 9, The Divine Image	<ul style="list-style-type: none"> • F-Dorian (transpositional: four-flat key signature with constant D-natural) • F-Dorian to F-Lydian in the end 	<ul style="list-style-type: none"> • Fits into the study of parallel relationship and modal mixture • Level 5 sight-singing (meter changes)
Vaughan Williams: Along the Field, 8 Songs for Tenor and Violin (soprano sings as well) No. 1. We’ll to the Woods No More. Score available at IMSLP	<ul style="list-style-type: none"> • E-Dorian (one sharp with accidentals), with very brief two-measure G-Dorian departure (the climax of the song) • Contrapuntal (two-voice) • Tritone relationship: E & B-flat • E-Dorian & G-Dorian (third apart) 	<ul style="list-style-type: none"> • Levels 4 or 5 • Challenging sight-singing (with brief modulation and rhythmic complexity) • Modulation and Tritone relationship • Text-painting analysis • Interpretation of performance
Miles Davis “So What?” 1959	<ul style="list-style-type: none"> • Dorian mode (modal jazz) 	<ul style="list-style-type: none"> • Levels 5 or 6 • Expanded aural identification
John Coltrane “Impressions” 1963	<ul style="list-style-type: none"> • Dorian mode in Jazz 	<ul style="list-style-type: none"> • Levels 5 or 6 • Expanded aural identification
The Beatles, “Eleanor Rigby” 1966	<ul style="list-style-type: none"> • Dorian mode in pop music 	<ul style="list-style-type: none"> • Level 2 and revisit in Level 5 • Aural identification
Santana (Mexican-American rock band) “Evil Ways” 1969	<ul style="list-style-type: none"> • Dorian in Latin Rock 	<ul style="list-style-type: none"> • Level 5 • Expanded aural identification
Santana “Oye Como Va” 1971	<ul style="list-style-type: none"> • Dorian in Latin Rock 	<ul style="list-style-type: none"> • Level 5 • Expanded aural identification
Chris Isaak “Wicked Game” 1989	<ul style="list-style-type: none"> • Dorian in Folk Rock... 	<ul style="list-style-type: none"> • Level 5 • Expanded aural identification

Table 4.8

Core Repertoire in the Mixolydian Mode

Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
<p><i>Old Joe Clark</i> Folk Song <i>Old Joe Clark's Musical Offering</i> by Ross Walter Score available at IMSLP</p>	<ul style="list-style-type: none"> • Mixolydian • Modern composer Ross Walter composed 5 canons and one sonata based on the folk melody 	<ul style="list-style-type: none"> • Level 1 • Familiar melody for aural identification and sight-singing • Walter's composition is good for level 5 study and/or beyond
<p><i>Rise up, Shepherd, and Follow</i> African American spiritual</p>	<ul style="list-style-type: none"> • Mixolydian • Several arrangements based on the melody are available (e.g. by John Rutter; Mark Hayes) 	<ul style="list-style-type: none"> • Level 1 • Familiar melody for aural identification and sight-singing • Different arrangements provide materials for activity
<p><i>Over the Sea to Skye</i> Arranged by Douglas E. Wagner Score can be purchased at Alfred Music</p>	<ul style="list-style-type: none"> • Uses Scottish Folk Song <i>The Skye Boat Song</i> • G-Mixolydian (one sharp key signature with F-natural) 	<ul style="list-style-type: none"> • Levels 3-4 aural identification • Harmonize traditional major melodies in Mixolydian mode • Identify the specific/colored harmonic progression
<p>Vaughan Williams: <i>6 Studies in English Folksong</i> (1926) for cello and piano, No. 4. Score available at IMSLP</p>	<ul style="list-style-type: none"> • D-Mixolydian (one-sharp key signature) • Piano harmony oscillation between v^7 and I • Piano part: modal mixture between D-Mixolydian and D-Dorian 	<ul style="list-style-type: none"> • Levels 3-4 • Part of the cello melody is good for sight-singing and melodic dictation • Good for score analysis (identify what the mode it is)
<p>Vaughan Williams: <i>Blackwore by the Stour</i> (1902) for voice and piano Folk song (rural dialect) Score available at IMSLP</p>	<ul style="list-style-type: none"> • E-Mixolydian (four sharps with D natural) • Transpositional key signature with accidental • Strophic form • Piano part includes both E-Mixolydian VII chord (with lowered seventh degree) and E-major dominant chord (with leading tone) 	<ul style="list-style-type: none"> • Levels 2-3 Vocal melody: rote or sight-singing; aural identification • Levels 4-5 • Revisit the piece later for special modal harmonic study • Melodic and harmonic • dictation in aural skills class

Table 4.8 (continued)	Mixolydian Mode	
Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Claude Debussy <i>La cathédrale engloutie</i> , from Preludes, Book I. Score available at IMSLP	<ul style="list-style-type: none"> • Mm. 28-40, mm. 72-81, Mixolydian mode (C-pedal with B-flat) • Contrasting sections on C#-Dorian mode 	<ul style="list-style-type: none"> • Level 5 • Score study: harmonic analysis; mode identification • Aural identification
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Mixolydian</i> , No. 1, With a Singing Spirit. Score available at JOMAR Press	<ul style="list-style-type: none"> • C-Mixolydian • Transpositional key signature with accidentals • Simple Mixolydian melody featuring lowered seventh scale degree • Typical phrase structure easier for beginners to identify 	<ul style="list-style-type: none"> • Levels 2-3: Aural identification • Notate the given melody by using a rotational key signature • Perform it in class (assign to interested students) • Identify the special harmonic progression in Mixolydian mode: v-I
Jody Nagel: <i>Twelve Easy Little Pieces in Twelve Different Modes</i> , No. 9, Scottish Lullaby. Score available at JOMAR Press	<ul style="list-style-type: none"> • C-Mixolydian • No key signature marking; uses accidentals • Melodic contour emphasizes the character of Mixolydian scale 	<ul style="list-style-type: none"> • Level 2: Aural identification • Ask students to rewrite the melody by using the rotational key signature • Melodic line can be used in dictation practice
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Mixolydian</i> , No. 3, Minuet. Score available at JOMAR Press	<ul style="list-style-type: none"> • A-flat-Mixolydian • Rhythmic complexity in a traditional 3/4 meter (Hemiola and Duple feeling in triple meter) • The emphasis of the tritone interval through both melody and harmony 	<ul style="list-style-type: none"> • Level 5: Aural identification (rhythmic complexity and ambiguity) • Level 5 and beyond: Score study and analysis (phrase structure) • Assigned performance and self-study project
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Mixolydian</i> , No. 6, With Kindness. Score available at JOMAR Press	<ul style="list-style-type: none"> • D-Mixolydian (transpositional key signature with accidental) • Harmonic progression: I-v-VII-ii 	<ul style="list-style-type: none"> • Level 4 • Harmonic dictation and Aural identification • Improvise Mixolydian melody based on existing progression
George Benson's version of "On Broadway" 1978	<ul style="list-style-type: none"> • Mixolydian 	<ul style="list-style-type: none"> • Level 5 • Expanded aural identification
Bob Seger Old Time Rock and Roll	<ul style="list-style-type: none"> • Mixolydian in Rock and Roll 	<ul style="list-style-type: none"> • Level 5 • Expanded aural identification

Table 4.9

Core Repertoire in the Phrygian Mode

Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
<i>O Sacred Head, Now Wounded</i> Christian Passion hymn Score available at CPDL	<ul style="list-style-type: none"> Phrygian tune Non-Phrygian harmonization by later composers (Hans Leo Hassler; J. S. Bach) 	<ul style="list-style-type: none"> Level 3: Aural identification and sight-singing Level 5: Stylistic appreciation by comparing different versions
Thomas Tallis: Third Tune (The 3 rd Mode Melody) <i>The God of Love My Shepherd Is</i> Score available at CPDL	<ul style="list-style-type: none"> Phrygian Vaughan Williams, <i>Fantasia on a Theme by Thomas Tallis</i> Score available at IMSLP 	<ul style="list-style-type: none"> Levels 3: Aural identification and sight-singing (melody only) Levels 3-4: Harmonization of the Phrygian melody (borrowed chords)
<i>Pange Lingua</i> Medieval Latin hymn Score available at CPDL	<ul style="list-style-type: none"> Phrygian Composer: Anton Bruckner 	<ul style="list-style-type: none"> Level 3: Aural identification Levels 5: Stylistic appreciation
Martin Luther's Phrygian hymn (chorale) <i>Aus tiefer Not schrei ich zu dir</i> (published in 1524) Score available at IMSLP and CPDL	<ul style="list-style-type: none"> J. S. Bach's 6-movement chorale cantata <i>Aus tiefer Not schrei ich zu dir</i>, BWV 38 Felix Mendelssohn's Motet <i>Aus tiefer Noth schrei' ich zu dir</i>, Op. 23, No. 1 	<ul style="list-style-type: none"> Level 3: Aural identification and sight-sing the hymn melody Comparing the original hymn with all the other settings by later composers for stylistic appreciation purpose
Bartok: <i>Mikrokosmos I</i> , No. 28, Canon at the Octave (IMSLP)	<ul style="list-style-type: none"> E-Phrygian Short and simple melody 	<ul style="list-style-type: none"> Level 1: Aural identification and sight-singing
Bartok: <i>Mikrokosmos I</i> , No. 34, In Phrygian Mode (IMSLP)	<ul style="list-style-type: none"> E-Phrygian In cut time, ties add to the rhythmic complexity 	<ul style="list-style-type: none"> Levels 1-2: Aural identification and sight-singing (two-part)
Carlos Chávez, Ten Preludes for piano, No. 1 Score needs to be purchased	<ul style="list-style-type: none"> E-Phrygian Rotational key signature Emphasis of tritone interval Two-part counterpoint with dissonance 	<ul style="list-style-type: none"> Levels 4-5: Score analysis with listening identification R.H. melody can be used as dictation example 20th-century music theory and counterpoint study
Chopin's Mazurka in C# minor, Op. 41, No. 1 Score available at IMSLP	<ul style="list-style-type: none"> Opening Phrygian Theme C# minor key signature with D natural marking in the beginning (Phrygian flavor) 	<ul style="list-style-type: none"> Level 3 Phrygian study Listening and score analysis Refer to the genre and history

Table 4.9 (continued)	Phrygian Mode	
Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Debussy: String Quartet in G minor, Op.10, 1 st movement, I. Animé et très décidé Score available at IMSLP	<ul style="list-style-type: none"> • G-Phrygian • Transpositional key signature with accidentals • Opening Phrygian Theme played by first violin 	<ul style="list-style-type: none"> • Level 3: The violin theme can be used as sight-singing material • 20th-century music theory and aural skills (analysis, dictation)
Maurice Ravel: <i>Sonatine</i> , first movement. Score available at IMSLP	<ul style="list-style-type: none"> • Neoclassical composition • F-sharp-Aeolian with Phrygian flavor (frequent G-natural in both inner voice and melody) 	<ul style="list-style-type: none"> • Level 5: 20th-century music theory study • Score analysis with aural appreciation and comprehension
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Phrygian</i> , No. 2, Powerful, but with anguish. Score available at Nagel's website	<ul style="list-style-type: none"> • C-Phrygian • Transpositional key signature with accidentals (3-flat with extra D-flat) • Special modal harmony between i and flat-II chords 	<ul style="list-style-type: none"> • Level 3: Aural identification and harmonic dictation • Level 5: 20th-century modal composition appreciation
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Phrygian</i> , No. 4, Hopeful. Score available at Nagel's website	<ul style="list-style-type: none"> • D-Phrygian (transpositional key signature with accidentals) • Special harmonic progression: i – flat-II – III – iv – flat-II – vii 	<ul style="list-style-type: none"> • Level 3: Aural identification • Level 5: Score analysis Melodic and harmonic dictation
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Phrygian</i> , No. 9, Chorale. Score available at Nagel's website	<ul style="list-style-type: none"> • A-Phrygian (transpositional, adding B-flat accidental) • Sequential harmonic progression: i – VI – flat-II – III; VI – iv – vii – i • i – flat-II; vii – i 	<ul style="list-style-type: none"> • Levels 3-4 • Aural identification • Sequential harmonic analysis • Four-part choral sight-singing
Jody Nagel: “Seven Thirteens” from <i>The Well-Tempered Mode, Songs from the Phrygian</i> , No. 13. Score available at JOMAR Press; Audio performance recorded by the author (See Appendix A)	<ul style="list-style-type: none"> • Frequent modulation with changes of key signatures • G – B-flat – G – E – C#; C# – E – C# – B-flat – G modulation contour is a fully diminished seventh chord, which includes two tritone intervals • Aesthetic value 	<ul style="list-style-type: none"> • Level 7 and beyond • Suitable for graduate study • Available audio recording can be used for aural identification and aural analysis

Table 4.10

Core Repertoire in the Lydian Mode

Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Czech Folk Songs Anna Hradsky Score available at musescore.com	<ul style="list-style-type: none"> • Lydian • Short phrases • Simple melody 	<ul style="list-style-type: none"> • Level 1: Aural identification and sight-singing • Transpose the simple melody to other Lydian mode
<i>The Ground Hog</i> Lonesome Tunes: Folk Songs from The Kentucky Mountains by Loraine Wyman & Howard Brockway Public Domain	<ul style="list-style-type: none"> • Lydian • Available score is written in G-Lydian (one-sharp key signature with C# as accidentals) • Piano accompaniment has interesting harmonization 	<ul style="list-style-type: none"> • Level 1: Aural identification and sight-singing • Transpose the simple melody to other Lydian mode • Level 4: Harmonic analysis and reharmonize the melody
Bartok: <i>Mikrokosmos II</i> , No. 37, In Lydian Mode. Score available at IMSLP	<ul style="list-style-type: none"> • F-Lydian (Rotational) • Emphasize tritone interval between 1st and 4th scale degrees (F and B) • Irregular phrase structure (5-measure phrase) 	<ul style="list-style-type: none"> • Levels 1-2: Aural identification and Two-part singing • Level 4 and beyond: 20th-century music theory and compositional technique
Bartok: <i>Mikrokosmos I</i> , No. 24, Pastorale Score available at IMSLP	<ul style="list-style-type: none"> • D-Lydian • Rotational approach with three-sharp key signature • Both hands have independent five-finger-pattern melodies 	<ul style="list-style-type: none"> • Levels 3-4: Sight-singing and aural identification • Two-part sight-singing • A modal keyboard piece as supplemental practice
Vaughan Williams: <i>Ten Blake Songs</i> , song cycle for high voice and oboe No. 1, Infant Joy. Score available at IMSLP	<ul style="list-style-type: none"> • G-flat Lydian (transpositional: six-flat key signature with C natural as accidental) • Adding Lydian flavor to a major melody 	<ul style="list-style-type: none"> • General listening and/or aural identification • Level 4: Sight-singing and melodic dictation
Vaughan Williams: <i>Ten Blake Songs</i> , song cycle for high voice and oboe No. 6, The Shepherd. Score available at IMSLP	<ul style="list-style-type: none"> • F-Lydian (transpositional: one-flat key signature with B-natural accidental) • Simple phrase structure to identify • Lydian flavor is added 	<ul style="list-style-type: none"> • Levels 1-2: Aural identification • Fundamental study: rewrite the melody using rotational key signature • Transpose to other Lydian mode • Level 4: Harmonize the melody

Table 4.10 (continued)	Lydian Mode	
Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Chopin Mazurka, Op. 68, No.3 Middle section (mm. 33-44) Score available at IMSLP	<ul style="list-style-type: none"> • The middle section of this piece contrasts starkly with the outer two sections. • The use of the B-flat Lydian mode in the central portion suspends all the harmonic activity. 	<ul style="list-style-type: none"> • Level 4 • Score study with stylistic analysis • Aural identification • Apply the similar compositional technique in practice (a contrast section in relative-mode)
Charles Griffes: Poem, for flute and orchestra (1918) Score available at IMSLP	<ul style="list-style-type: none"> • Flute solo at rehearsal H Piu mosso plays a melody in C#-Lydian (double F#) • C# minor key signature with accidentals 	<ul style="list-style-type: none"> • Level 5 or 6 • 20th-century music theory and aural skills (analysis, aural identification)
Francis Poulenc: <i>Valse</i> for solo piano (1919) Score available at IMSLP	<ul style="list-style-type: none"> • C-Lydian (with F# accidental) • Two contrast sections, first is in C-Lydian, second is in C-major 	<ul style="list-style-type: none"> • Level 4 • Score analysis (phrase structure and form) • Aural identification
Puccini: <i>Tosca</i> , Act III “Io de' sospiri” (Or “Un Pastore”) Score available at IMSLP	<ul style="list-style-type: none"> • E-Lydian (Transpositional: four-sharp key signature with A# accidental) • Both vocal line and orchestra accompaniment have strong Lydian flavor 	<ul style="list-style-type: none"> • Level 4 • Sight-sing the vocal line • Aural identification • Harmonic analysis of the accompaniment
Leonard Bernstein, Broadway Musical <i>West Side Story</i> , Maria	<ul style="list-style-type: none"> • E-flat Lydian mode • The main theme uses the melodic interval of a tritone 	<ul style="list-style-type: none"> • Level 5 • Expanded aural identification • Music stylistic appreciation

Table 4.11

Core Repertoire in the Locrian Mode

Repertoire	Theoretical Characteristics	Pedagogical Applications in this Curriculum Guide
Bartok: <i>Mikrokosmos II</i> , No. 63, Buzzing Score available at IMSLP	<ul style="list-style-type: none"> • F#-Locrian (Rotational) • Overwhelming harsh dissonance • Emphasize the diminished fifth interval between 1st and 5th scale degrees 	<ul style="list-style-type: none"> • Pre-Level 5: Aural identification • Level 5: An example of 20th-century Locrian composition
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Locrian</i> , No. 2, Fleeing quickly	<ul style="list-style-type: none"> • D-Locrian • Transpositional approach (D-minor key signature with accidentals) • Simple melodic line with Locrian characteristic 	<ul style="list-style-type: none"> • Pre-Level 5: Aural identification • Renotate the melody by using rotational modal key signature • Level 5 an example of 20th-century Locrian composition
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Locrian</i> , No. 3, Angry march. Score available at Nagel's website	<ul style="list-style-type: none"> • A-Locrian • The 8-note motive has strong Locrian color • The emphasis of diminished fifth between 1st and 5th scale degrees 	<ul style="list-style-type: none"> • Level 5 • 20th-century music theory Locrian mode study • Aural identification • Renotate the motive by using rotational modal key signature
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Locrian</i> , No. 7, Brutal	<ul style="list-style-type: none"> • C-Locrian • Transpositional key signature with accidentals • Repetitive tritone as foundation played on LH 	<ul style="list-style-type: none"> • Level 5 • 20th-century music theory Locrian mode study • Aural identification
Jody Nagel: <i>The Well-Tempered Mode, Songs from the Locrian</i> , No. 11, Mechanistic Score available at	<ul style="list-style-type: none"> • G#-Locrian • Frequent meter change among 7/8, 5/8, and 6/8 • Single Locrian melody over G# pedal tone 	<ul style="list-style-type: none"> • Level 5 • 20th-century music theory Locrian mode study • Aural identification
Carlos Chávez, Ten Preludes (No. 4)	<ul style="list-style-type: none"> • B-Locrian mode • Emphasize the tritone between F and B 	<ul style="list-style-type: none"> • Level 5: Aural identification • Assigned to students to practice and perform in class
Shostakovich's String Quartet No. 10, Op. 118 (1964), second movement	<ul style="list-style-type: none"> • Written in E minor, the opening theme played by first violin is clearly in E-Locrian • Contrasting tonal centers between 1st and 2nd movements (Tritone apart) 	<ul style="list-style-type: none"> • Level 5 • 20th-century music theory Locrian mode study—music appreciation and aural identification

Chapter Summary and Curricular Recommendations

The review of current content and pedagogy in the typical undergraduate music theory curriculum confirms that significant deficiencies exist related to the introduction and integration of diatonic modes, despite their foundational importance leading up to the Common Practice Period and their very frequent application in 20th-century repertoire. Specifically, the review of commonly used music theory textbooks as well as published surveys and commentaries on current music theory pedagogy corroborate that:

- Diatonic modes overall are given too little focus and emphasis; diatonic modality remains an insignificant topic in music theory.
- Diatonic modes are introduced and taught inappropriately and unnecessarily late in the curricular sequence. Music theory textbooks adhere to a common chronological order, addressing theory related to the Common Practice Period of the 18th – 20th centuries while including little or no pre-17th-century theory. As a result, diatonic modes are taught mostly or solely as part of 20th-century theory, following the focus on complicated chromaticism.
- In addition to being limited, the teaching of diatonic modes is inefficient and ineffective, emphasizing visual conceptualization over aural understanding and practical application.

The examination in this chapter of significant learning theories and their current and potential applications in music theory pedagogy led to the identification of three pedagogical pillars designed to address these curricular deficiencies:

- **Sound Before Symbol:** The initial introduction of diatonic modality should apply a sound-first approach—listening to, singing, and audiating modal scales and modal

melodies. Because most undergraduate music theory curricula do not include a separate aural skills class associated with fundamentals study, teachers of the introductory/remedial written theory course should integrate aural experiences with modal scales (e.g., playing/singing modal scales, listening to modal melodies/repertoire), thereby facilitating students' abilities to audiate these scales before they are expected to interact with score notation. This initial instruction should apply a rotational perspective, employing movable-*do*, *la*-minor to sing the modal scales using diatonic solfege syllables immediately after the students can sing a major scale on solfege.

- **Spiral Learning:** After the initial introduction of diatonic modes, instructors should teach one mode at a time in some detail following a practical sequence of introduction.

Building on fundamentals study, the core theory classes of each semester in the curriculum (progressing from harmony through 20th-century music theory and on to more advanced theoretical study) will revisit the modes in increasingly advanced contexts—reviewing previous learning, establishing a deeper comprehension, and transferring past learning to initial encounters with a new mode. Aural skills classes should consistently include the aural identification, sight-singing, and melodic dictation of the diatonic modes from beginning to advanced levels throughout the entire four-semester aural skills sequence.

- **Comprehensive Musicianship:** Applying the principles and five components of the CMP Model to the detailed instructional plans, learning activities will be grounded in a diverse core of repertoire, maximizing student engagement via authentic musical experiences and the application of discovery learning strategies.

These three instructional principles provide the foundation for the sequential curriculum presented in Chapter 5, including detailed lesson plans outlining parallel and complementary instruction in written theory and aural skills classes. This innovative curriculum has the potential to not only significantly improve the teaching and learning of diatonic modality in undergraduate music theory but also to serve as a model that may help transform the overall approach to collegiate music theory instruction.

CHAPTER FIVE

CURRICULUM GUIDE FOR TEACHING DIATONIC MODALITY

IN THE UNDERGRADUATE MUSIC THEORY CURRICULUM

Building on the firm pedagogical foundation established in Chapter 4, this chapter presents the detailed curriculum guide for teaching diatonic modality in the undergraduate music theory core curriculum with a specific focus on the first two years of theory study: fundamentals, diatonic harmony, chromatic harmony, and 20th-century music theory. After briefly summarizing the deficiencies in current music theory curricula with respect to diatonic modality and then highlighting the specific recommendations that underly the proposed supplement to the core music theory curriculum, a comprehensive scope and sequence is delineated in three curriculum mapping tables. Building on this vital framework, the sequence of detailed lesson plans that constitute a major portion of the chapter provide thorough instructional guidelines for each step in the teaching-learning process.

Overview of the Pedagogical Recommendations

As identified near the end of Chapter 4, the primary deficiencies in current music theory curricula with respect to diatonic modality include:

1. The general marginalization of diatonic modality in the college music theory curriculum.
2. The unnecessarily delayed introduction of diatonic modes as a result of commonly used music theory textbooks focusing on the Common Practice Period of the 18th – 20th centuries while including little or no pre-17th-century theory. Diatonic modes are taught mostly or solely as part of 20th-century theory.

3. The ineffective strategies and approaches utilized for teaching diatonic modes that emphasize visual conceptualization over aural understanding and practical application.

Applying the best-practice pedagogy discussed in Chapter 4, the following recommendations serve as the framework for addressing these deficiencies:

- If a music theory placement test or entrance exam is required, it should include questions related to diatonic modes.
- Diatonic modality should be introduced during the first semester of the college music theory curriculum as an important topic of fundamentals study.
- The initial introduction of diatonic modality should apply a sound-first approach—listening to, singing, and audiating modal scales and modal melodies.
- This initial instruction should apply a rotational perspective, employing movable-*do*, *la*-minor to sing the modal scales using only diatonic solfege syllables immediately after the students can sing a major scale on solfege.
- After the initial introduction of diatonic modes, instructors should teach one mode at a time in some detail following a practical sequence of introduction.
- Building on fundamentals study, the core theory classes of each semester in the curriculum should revisit the modes in increasingly advanced contexts—reviewing previous learning, establishing a deeper comprehension, and transferring past learning to initial encounters with a new mode.
- Aural skills classes should consistently include the aural identification, sight-singing, and melodic dictation of the diatonic modes from beginning to advanced levels throughout the entire four-semester aural skills sequence.

- Instructors should apply the principles and five components of the CMP Model to the detailed instructional plans. Learning activities should be grounded in a diverse core of repertoire, maximizing student engagement via authentic musical experiences and the application of discovery learning strategies.
- Aural training/practice (listening and singing) should be integrated into written theory classes to maximize effective learning.

These pedagogical pillars provide the structure for a comprehensive scope and sequence designed to significantly enhance the integration of diatonic modality into the undergraduate music theory curriculum.

Scope and Sequence

It is imperative to develop and delineate the scope and sequence for any curriculum to ensure its coherence and continuity and to provide a comprehensive overview and reference for instructors. This is particularly important for the purposes of this proposed diatonic modality curriculum because it is designed to be integrated into the existing core music theory curriculum. Tables 5.1, 5.2, and 5.3 provide a progressive view of this scope, sequence, and integration.

It is important to provide a clarification at this point related to the content typically designated as *fundamentals* in music theory courses and the different curricular approaches to delivering this content in undergraduate music programs. According to Murphy and McConville (2017), 91.51% of collegiate music programs cover/review the topics of fundamentals in the first quarter/semester of the music theory core, whether in a separate fundamentals class or as part of a first-semester harmony class. The following tables, therefore, assume this very common approach and integrate the initial lessons on diatonic modes into fundamentals. For any programs that do not include fundamentals in the required curriculum (e.g., require a test-in to the first

semester theory course), it is very important that questions assessing the outcomes for diatonic modality associated with fundamentals are included in the placement exam.

Table 5.1 presents a detailed scope and sequence of the diatonic modality content. The left column identifies each of the semesters in the common four-semester sequence; the right column specifies the outcomes for the focus concepts and skills (scope) in the order in which they should be taught (sequence).

The efficient and effective integration of the content outlined in Table 5.1 into the existing music theory core curriculum is a crucial consideration. Aligning the specific outcomes related to diatonic modality with prerequisite and correlated knowledge and skills in the existing curriculum will facilitate and reinforce learning. Table 5.2 presents this recommended alignment. Because theory textbooks are the most common pedagogical tool in college music theory teaching and learning, used by over 80% instructors in the U.S., the two most commonly used theory textbooks were consulted to verify the current content and sequence of the core theory curriculum. Descriptions of these two texts confirm their purpose and correlation:

- “*The Musician’s Guide to Theory and Analysis* is a complete package of theory and aural skills resources that covers every topic commonly taught in the undergraduate sequence” (“The musician’s guide,” n.d., para. 1).
- “*Tonal Harmony with an Introduction to Post-Tonal Music* is intended for a two-year course in music theory/harmony” (Kostka, Payne, & Almén, 2018, p. ix).

As a result of their common usage, the Table of Contents of these two texts serve as the baseline content and sequence for the core music theory curriculum. This content sequence is presented in two parallel columns in Table 5.2, with the recommended integration of the primary topics on diatonic modality (derived from Table 5.1) included in the right column and the semester sequence in the left column.

Table 5.1

Scope and Sequence for the Teaching of Diatonic Modes

Semester	Outcomes/Objectives (Aural Skills and Written Theory)
1 st Semester Fundamentals Introduction; Aeolian, Dorian, and Mixolydian (Scales, modes, key signature, scale degree)	<ul style="list-style-type: none"> • Define modes; name seven diatonic modes in order from memory. • Sing and sign (using Curwen hand signs) all seven diatonic modes on solfege (using movable-<i>do</i>, <i>la</i>-minor), ascending and descending. • Demonstrate an understanding of the concept of rotation as it applies to diatonic modes. • Notate the seven modes/modal scales on the staff using accidentals and/or key signatures, identifying the correlated solfege syllables, scale degree names, and solidify the identification of the scalar pattern of each mode. • Categorize all of the modes as either major or minor. • Compare and contrast the rotational and transpositional approaches to modes. • Sing by rote simple Aeolian, Dorian, and Mixolydian folk melodies. • Sight-sing notated Aeolian, Dorian, and Mixolydian melodies on solfege (using movable-<i>do</i>, <i>la</i>-minor). • Improvise and compose short melodies in Aeolian, Dorian, and Mixolydian modes. • Visually and aurally identify and differentiate modal melodies written in Ionian, Aeolian, Dorian, and Mixolydian.
2 nd Semester Diatonic Harmony Review previous study; New focus: Phrygian (Phrygian Cadence)	<ul style="list-style-type: none"> • Sing and sign all seven diatonic modes on solfege starting at any given pitch (audiate home tone before singing), ascending and descending. • Notate modes/modal scales on the staff using rotational and transpositional approaches. • Sight-sing notated Phrygian, Aeolian, Dorian, and Mixolydian melodies (with and without key signatures) on solfege. • Aurally identify three minor modes—Phrygian, Dorian, and Aeolian. • Improvise and compose melodies in Aeolian, Dorian, Mixolydian, and Phrygian modes (at least 8 measures). • Visually and aurally identify and differentiate modal melodies that written in Ionian, Aeolian, Dorian, Mixolydian, and Phrygian. • Notate and label with Roman numerals diatonic triads in Aeolian, Dorian, and Phrygian modes and differentiate them from functional harmony (diatonic chords in major/harmonic minor).
3 rd Semester Chromaticism Review previous study; New focus: Lydian (Mode mixture; Borrowed chords)	<ul style="list-style-type: none"> • Refining the skills <ul style="list-style-type: none"> ➤ Sing and sign all seven diatonic modes on solfege starting at any given pitch, ascending and descending. ➤ Notate modes/modal scales on the staff using rotational and transpositional approaches. • Notate and label with Roman numerals diatonic triads in Aeolian, Dorian, Phrygian, Lydian, and Mixolydian modes, and identify characteristic chords in each mode. • Sight-sing notated Lydian, Phrygian, Aeolian, Dorian, and Mixolydian melodies (with and without key signatures) on solfege. • Improvise and compose melodies in Aeolian, Dorian, Mixolydian, Phrygian, and Lydian modes. • Visually and aurally identify and differentiate modal melodies that written in Ionian, Aeolian, Dorian, Mixolydian, Phrygian, and Lydian. • Aurally identify three major modes (Lydian, Mixolydian, and Ionian) and three minor modes (Phrygian, Dorian, and Aeolian). • Play modal scales on keyboard starting at any given pitch. • Perform advanced modal melodies on a chosen instrument.

Table 5.1 (continued)

<p>4th Semester</p> <p>20th-century post-tonal theory</p> <p>Review and summary; add Locrian; expand modes used in other genres</p> <p>(20th-century scale materials; Modes, scales.)</p>	<ul style="list-style-type: none"> • Refining the skills <ul style="list-style-type: none"> ➤ Sing and sign all seven diatonic modes on solfege starting at any given pitch, ascending and descending. ➤ Notate modes/modal scales on the staff using rotational and transpositional approaches. ➤ Sight-sing notated Lydian, Phrygian, Aeolian, Dorian, and Mixolydian melodies (with and without key signatures) on solfege. ➤ Visually and aurally identify and differentiate modal melodies that written in ALL seven diatonic modes. • Name and sing by rote representative folk songs in each mode. • Analyze contemporary modal repertoire, identifying special chords and/or chord progressions used in the compositions. • Identify characteristic chords and/or harmonic progressions used in each mode. • Identify the procedural sequence for harmonizing modal melodies and begin applying this sequence to harmonize assigned or self-composed melodies. • Notate modal melodies from dictation. • Describe the historical significance, evolution, and application of modes. • Identify modes in contemporary genres other than art music such as pop and jazz.
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Table 5.2

Curriculum Map for the Teaching of Diatonic Modes

Semester	<i>Tonal Harmony with an Introduction to Post-Tonal Music</i> (Kostka, Payne, & Almén)	<i>The Musician's Guide to Theory and Analysis</i> (Clendinning & Marvin)	Correlated Topics in Diatonic Modality
First portion of 1 st Semester Fundamentals	Part One: Fundamentals Topics: Pitch, Scales , Intervals, Rhythm, Meters, Triads, Seventh Chords	Part I: Elements of Music Topics: Pitch, Meters, Scales (modes) , Intervals, Triads, Seventh Chords, Species Counterpoint	Scales (Modes as a specific topic)
Remainder of 1 st Semester (after Fundamentals) & 2 nd Semester Diatonic Harmony	Part Two & Three: Diatonic Triads & Diatonic Seventh Chords Topics: Principles of voice leading, Root-position part writing, Harmonic progression and the sequence, Triads in first inversion, Triads in second inversion, Cadences & phrases, counterpoint, Nonchord tones, The V ⁷ chord & other diatonic seventh chords.	Part II: Diatonic Harmony and Tonicization Topics: Four-part harmony, Tonic and dominant chords, Dominant sevenths & the predominant area, Cadence types , Diatonic root progression, Embellishing tones, Voice-leading chords, Phrase structure and motivic analysis, Diatonic sequences, Secondary dominant, Tonicizing	Cadences (as an expansion of Phrygian cadence study)

Table 5.2 (continued)

3 rd Semester Chromaticism	Part Four & Five: Chromaticism 1&2 Topics: Secondary function and tonicization, Modulation, Larger forms, Mode Mixture and the Neapolitan, Augmented sixth chords, Enharmonic spellings & modulations	Part III: Chromatic Harmony and Form Topics: Modulation, Baroque Counterpoint, Modal mixture , Neapolitan sixth and Augmented-sixth chords; small and Large forms, Chromatic harmony and voice-leading	Mode mixture; Modal mixture (borrowed chords: Picardy Third; Neapolitan)
4 th Semester 20 th -Century Theory	Part Six: An Introduction to Post-tonal Music Topics: Materials and techniques (scale, chord, rhythm and meter), Post-tonal theory, New directions (other trends)	Part IV: The Twentieth Century and Beyond Topics: Modes, scales , and sets; Rhythm, meter and form in music after 1900; sets and set classes; Serialism, recent trends	20th-century Materials and Techniques (Scale Materials); Modes, scales.

With the overall scope and sequence delineated in Tables 5.1 and 5.2, Table 5.3 details the specific instructional plans that correlate with each topic. These instructional plans that constitute much of the remainder of the chapter are identified in the right two columns using a labeling system that clarifies both sequence and context: W for Written theory lessons and A for Aural skills classes. This table serves as a helpful reference to quickly identify the focus concept/skill of each lesson plan.

Table 5.3

Instructional Plans Map for the Teaching of Diatonic Modes

Semester	Written Theory Lessons	Aural Skills Lessons
1 st Semester, Fundamentals	1-W-1: Introduction to Seven Diatonic Modes and the Concept of Rotation 1-W-2: Review/Reinforce Seven Diatonic Modes; Rotation; Aeolian, Dorian, Mixolydian 1-W-3: Categorizing Major and Minor Modes; Notating Modes with Key Signatures 1-W-4: Aeolian (natural minor), Harmonic Minor, and Dorian 1-W-5: Mixolydian Mode & Review	1-A-1: Singing/Signing Seven Diatonic Modes; Aeolian and Dorian 1-A-2: Singing Modal Melodies on Solfege—Aeolian, Dorian, and Mixolydian 1-A-3: Singing Modal Melodies with Key Signatures 1-A-4: Singing Two Minor Modes—Aeolian and Dorian 1-A-5: Singing Mixolydian Mode
2 nd Semester, Harmony	2-W-1: Phrygian Mode & Review 2-W-2: Review/Reinforce All Minor Modes; Advanced Practice and Application	2-A-1: Singing Phrygian Mode 2-A-2: Identify, Singing, and Improvising—Phrygian, Dorian, and Aeolian
3 rd Semester, Chromaticism	3-W-1: Lydian Mode & Review 3-W-2: Review/Reinforce All Modes; Advanced Practice and Application	3-A-1: Identify, Singing, and Improvising—Lydian 3-A-2: Identifying, Singing, and Improvising—Lydian and Mixolydian
4 th Semester, Post-Tonal Theory	4-W-1: Analysis and Harmonization of Contemporary Modal Compositions 4-W-2: Locrian Mode and Tritone 4-W-3: A Brief History of Mode & Mode in Contemporary Pop and Jazz	4-A-1: Review and Reinforce All Modes 4-A-2: Locrian Mode & Review of Four Minor Modes 4-A-3: Modes in Pop and Jazz

Collectively, Tables 5.1, 5.2, and 5.3 delineate the scope and sequence for the integration of the teaching of diatonic modality in the undergraduate music theory core curriculum. Coordinators of the collegiate music theory curriculum at each institution will find these tables particularly valuable as they work with their music theory faculty to integrate this important content.

Instructional Plans

The detailed 12 written and 12 aural skills lesson plans that follow constitute the essence of this pedagogical guide to the teaching of diatonic modality in the college music theory curriculum. As detailed in Table 5.3, written and aural skills lessons are paired and strongly correlated; it is important, therefore, that they be delivered in very close time proximity – ideally on consecutive days, written followed by aural. Because this series of lessons is integrated throughout the four-semester curriculum as detailed in Table 5.2, some time will pass between one pair of plans and the next. This makes it particularly important to be attentive to the prerequisites listed at the beginning of each lesson plan.

It is important to note that most of the written lessons are 30-40 minutes in length, allowing for other content to be delivered during a typical 50-minute session and/or for extensions of the modal content. The aural skills lessons are a somewhat shorter 20-30 minutes, making them even more modular. On the other hand, aural skills in particular are built as a result of repetition, so the integration of the skill work from these lessons into regular aural skills classes will be helpful for both the development of mode-related skills and for the transfer to correlated skills. One particularly helpful and easily incorporated strategy would be to draw on the extensive listing of modal repertoire in the lesson plans and in Tables 4.6-4.11 to provide entry and exit music for daily classes. This, of course, can and should be extended to a broad variety of repertoire.

Each of the 24 plans follows a common format. This format includes the title, focus, list of prerequisite knowledge and skills, detailed behavioral objectives, listing of required materials, and very detailed instructional procedures. To assist with effective pacing, recommended timestamps are included in the plans. Perhaps the most significant details in the plans, as is

absolutely essential from a CMP perspective, is the detailed list of repertoire correlated with each focus lesson. The extensive lists presented in the Chapter 4 mode-specific tables (4.6-4.11) serve as the source for these lists. Assessment strategies are integrated into the lessons via questioning and participatory activities, both aural and written. While the aural skills lessons focus exclusively on the aural, of course, the written plans integrate aural activities to ensure the critical connections between skill and concept are established. This guide does not include separate summative assessments such as written exams and skill tests—these assessments of modal learning should be integrated into more comprehensive evaluations—but the elements of both of these are clearly included in the plans via worksheets, notating activities, singing and aural identification assessments, score analysis, improvisation activities, and composition assignments.

The lesson plans provide not only a very detailed approach to the teaching of diatonic modality but also a model of planning in general for delivering music theory content. Instructors using these plans will be able to provide effective and efficient instruction of diatonic modality and, hopefully, transfer this to improve their teaching effectiveness more comprehensively.

Lesson 1-W-1: Semester 1, Fundamentals, Written Theory, Lesson 1

Focus: Introduction to Seven Diatonic Modes and the Concept of Rotation

Instructional time for this lesson module: 30 minutes

Prerequisite Knowledge and Skills for this class

- Know the concepts of staff, keyboard, clefs, octave, etc. (under subject “pitch”)
- Sing major scale on solfege (know seven diatonic syllables)
- Notate major scale on the staff
- Understand the concept of scale degree—number and name of each scale degree (tonic)
- Memorize whole/half step pattern of major scale
- Understand the concept of transposition, and transpose C-major scale to other starting pitches both on staff (using accidentals) and keyboard

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Define diatonic modes.
- Name the seven diatonic modes in order.
- Sing and sign (using Curwen hand signs) all seven diatonic modes on solfege (using movable-*do*, *la*-minor), ascending and descending.
- Demonstrate an understanding of the concept of rotation as it applies to diatonic modes.
- Notate the seven white-key modes/scales on the staff, identifying the correlated solfege syllables, scale degree names, and the whole- and half-step scalar pattern of each mode.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - *Diatonic Modes in Rotation* (see below)
 - *Scale Degrees Applied to Diatonic Modes* (see below)
- Students need staff paper and pencil

Procedures

- 0:00 Applying a sound-before-symbol and discovery approach, lead students from singing the major scale to singing the diatonic modes (not yet naming them)
- All students sing major scale on solfege. Provide *do* and have the students sing a major scale. Then provide a new *do* and have them sing the major scale again.
 - Ask students to audiate home tone *do*, start singing at syllable *re*, sing from *re* to *re*, ascending and descending.
 - Have students sing from *do* to *do* and then *re* to *re* once more, comparing those two scales. Solicit: Do they sound same or different?
 - Repeat the same practice from *mi* to *mi*, *fa* to *fa*, etc. until students have sung all seven diatonic modes (not yet naming them).

0:03 Solicit the definition of a scale

- For Reference: Definition (from *Grove Music Online*)

A sequence of notes in ascending or descending order of pitch. As a musicological concept, a scale is a sequence long enough to define unambiguously a mode, tonality, or some special linear construction, and that begins and ends on the fundamental note of the tonality or mode. Seven-note scales lying within the octave contain one representative of each letter name (A–B–C–D–E–F–G), any of which may be inflected by an accidental. A scale is Diatonic if the sequence of notes is based on a particular species of octave consisting of five tones and two semitones. The white notes of the piano perhaps offer the simplest illustration of diatonic scales. The scales on D, E, F and G are the most common of the four authentic church modes. The Locrian is almost never used, since the unstable interval of a tritone occurs between the two most important degrees, the first and fifth.

0:05 Solicit other types of scales besides the major scale (briefly introduce the name only)

- Pentatonic Scale (5 notes)
- Whole-Tone Scale (6 notes)
- Diatonic Modes (7 notes = heptatonic scale)
- Octatonic Scale (8 notes)

0:07 Introduce diatonic modes and the concept of rotation

- Present the definition and characteristics of *Diatonic Modes*:
 - *Seven-note scale constructed sequentially using only whole-steps and half-steps, repeating at the octave, having a tonal center, and comprising only one tritone interval between any two scale members. In Western music, there are seven such scales and they are commonly known as the modes of the major scale: Ionian (major), Dorian, Phrygian, Lydian, Mixolydian, Aeolian (minor), and Locrian.*
- Solicit the whole- and half-step pattern for the major scale (W-W-H-W-W-W-H)
- Project the *Diatonic Modes in Rotation* visual on the screen and present the 7 diatonic modes via the rotational approach:

Diatonic Modes in Rotation

C-Ionian	C	D	E	F	G	A	B	C							
D-Dorian		D	E	F	G	A	B	C	D						
E-Phrygian			E	F	G	A	B	C	D	E					
F-Lydian				F	G	A	B	C	D	E	F				
G-Mixolydian					G	A	B	C	D	E	F	G			
A-Aeolian						A	B	C	D	E	F	G	A		
B-Locrian							B	C	D	E	F	G	A	B	
C-Ionian								C	D	E	F	G	A	B	C
Whole & Half Step Pattern		W	W	H	W	W	W	H	W	W	H	W	W	W	H

- Project the *Scale Degrees Applied to Diatonic Modes* visual on the screen. Briefly refer to scale degrees, both numbers and names; students should be able to apply previously learned terms to the current study of diatonic modes.

Scale Degrees Applied to Diatonic Modes

	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediant	Leading tone Subtonic
C-Ionian	C	D	E	F	G	A	B
D-Dorian	D	E	F	G	A	B	C
E-Phrygian	E	F	G	A	B	C	D
F-Lydian	F	G	A	B	C	D	E
G-Mixolydian	G	A	B	C	D	E	F
A-Aeolian	A	B	C	D	E	F	G
B-Locrian	B	C	D	E	F	G	A

0:15 Project the *Diatonic Modes in Rotation* visual on the screen again. Have the students name and then sing each of the Diatonic Modes on solfege with Curwen hand signs. Reinforce the home syllable for each of the modes.

- Sing Ionian (major) mode from *re* to *re*
- Sing Dorian mode from *re* to *re*
- Sing Phrygian mode from *mi* to *mi*
- Sing Lydian mode from *fa* to *fa*
- Sing Mixolydian mode from *sol* to *sol*
- Sing Aeolian (natural minor) from *la* to *la*
- Sing Locrian mode from *ti* to *ti*

0:18 Have students notate a C-Major scale on staff paper (ascending only will be sufficient). Then have them add the solfege syllables for each scale degree, the names of the scale degrees, and the whole- and half-step labels for each interval. Circulate through the classroom to monitor and guide students as needed.

Applying the rotational approach, have the students notate and label each of the diatonic *white key* modes, again adding the solfege syllables (using movable-*do*, *la*-minor), the names of the scale degrees, and the whole- and half-step labels for each interval.

It is appropriate to leave the *Diatonic Modes in Rotation* visual on the screen for their reference; this lesson is about helping them succeed. Circulate through the classroom to monitor and guide students as needed.

Note: While this student work could serve as an “exit ticket” from this session, it will be best to allow them to keep this as part of their class notes.

0:25 Reinforcement activity

- Keeping the home *do* in mind, randomly choose one student (student A) and ask him/her to sing any one of the diatonic modes on solfege, ascending and descending. For example, sing Dorian mode. If necessary, solicit starting (home) syllable.
- After Student A accurately sings the mode, have the entire class sing it.
- Student A chooses and asks Student B to sing a different diatonic mode on solfege; the class repeats.

- Continue this game to facilitate students' aural memorization of all seven diatonic modes by singing them on appropriate solfege. This can also help students memorize the order of the diatonic modes.

0:30 Closure & Assignment

Advise the students to add the page of scales they wrote during class to their class notes. Encourage them to practice naming and singing all seven diatonic modes in order on solfege.

Transition to other content for the remainder of the class time.

Lesson 1-A-1: Semester 1, Fundamentals, Aural Skills, Lesson 1

Focus: Singing/Signing Seven Diatonic Modes; Aeolian and Dorian

Instructional Time: 20 minutes

Prerequisite Knowledge and Skills for this class

Lesson 1-W-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing and sign (using Curwen hand signs) all seven diatonic modes *in order* on solfege (using movable-*do*, *la*-minor), ascending and descending.
- Sing and sign from notation the diatonic modes (white-key modes only) on solfege.
- Sing by rote simple Aeolian and Dorian folk melodies.
- Sight-sing notated A-Aeolian and D-Dorian melodies on solfege (movable-*do*, *la*-minor).

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - *Notated White-Key Modes* (all), ascending and descending
 - Brief and simple (stepwise) instructor-composed examples for sight-singing in A-Aeolian and D-Dorian
- *God Rest You Merry, Gentlemen* (English traditional Christmas carol) Aeolian
- *Lovely Joan* (English Folk Song) Dorian
- Brief instructor-composed examples for sight-singing in A-Aeolian and D-Dorian

Procedures

0:00 Sing and sign (using Curwen hand signs) all seven diatonic modes *in order* on solfege using movable-*do*, *la*-minor, ascending and descending. Solicit starting syllable for each scale; encourage audiation of the syllables starting on *do* as needed. Correct/repeat if needed.

- Sing Ionian (Major) mode from *do* to *do*
- Sing Dorian mode from *re* to *re*
- Sing Phrygian mode from *mi* to *mi*
- Sing Lydian mode from *fa* to *fa*
- Sing Mixolydian mode from *sol* to *sol*
- Sing Aeolian/Natural minor from *la* to *la*
- Sing Locrian mode from *ti* to *ti*

0:03 Reading from the notated modes on the screen/board (white-key modes only), sing and sign each mode again on solfege using movable-*do*, *la*-minor. Correct/repeat if needed. Note: The students could also refer to their notated modes sheet completed in Lesson 1-W-1.

- 0:05 Model *God Rest You Merry, Gentlemen*. (Optional: A week earlier, assign a student or student group to learn and prepare to rote teach the song to the class.)
Solicit whether the melody is Aeolian or Dorian. Students need *not* be certain to move ahead with the next step.
Teach *God Rest You Merry, Gentlemen* by rote (echo-teach each phrase). Optional to teach refrain only (“O tidings ...”).
Help students confirm that the melody is Aeolian and why.
- 0:10 Model *Lovely Joan*. (Optional: A week earlier, assign a student or student group to learn and prepare to rote teach the song to the class.)
Solicit whether the melody is Aeolian or Dorian. Students need *not* be certain to move ahead with the next step.
Teach *Lovely Joan* by rote (echo-teach each phrase).
Help students confirm that the melody is Dorian and why.
- 0:15 Sight-sing brief instructor-composed A-Aeolian and D-Dorian (white-key) melodies on solfege (movable-*do*, *la*-minor)
- 0:20 Closure
Encourage students to sing the learned folk melodies as independent practice (outside of class) to reinforce the sounds of Aeolian and Dorian modes. Challenge them to sing them on solfege. (Post the notated melodies on the course LMP/website for student access.)
- Transition to other aural skills content for the remainder of the class time.

Lesson 1-W-2: Semester 1, Fundamentals, Written Theory, Lesson 2

Focus: Review/Reinforce Seven Diatonic Modes; Rotation; Aeolian, Dorian, Mixolydian
Instructional time for this lesson module: 30 minutes

Prerequisite Knowledge and Skills for this class

Lesson 1-W-1; 1-A-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Demonstrate the memorization of the names of the seven modes in order.
- Demonstrate and apply the concept of rotation as it applies to diatonic modes.
- Notate seven modes (other than white-key modes, for example, D-Ionian, E-Dorian) on the staff (using accidentals) and solidify the identification of the scalar pattern of each mode.
- Sight-sing notated Aeolian, Dorian, and Mixolydian melodies on solfege (using movable-*do*, *la*-minor).

Materials

- Piano/keyboard, board, marker, eraser
- Copies of Worksheet for Lesson 1-W-2 for each student (this worksheet is included after this lesson)
- Instructor created visuals to project on screen
 - Diatonic Modes & Rotation table (see Lesson 1-W-1)
 - Notated white-key modes (all), ascending and descending
- Students need staff paper and pencil
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 5 (Aeolian)
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 13 (Optional for major/Ionian)
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 14 (Dorian)
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 31 Little Dance in Canon Form (Dorian)
- Bartók: *Mikrokosmos*, Sz.107, Vol. 2 No. 48 (Mixolydian)

Procedures

0:00 Students sing and sign (using Curwen hand signs) all seven diatonic modes *in order* on solfege using movable-*do*, *la*-minor, ascending and descending. Solicit starting syllable for each scale; encourage audiation of the syllables starting on *do* as needed. Correct/repeat if needed.

- Sing Ionian (Major) mode from *do* to *do*
- Sing Dorian mode from *re* to *re*
- Sing Phrygian mode from *mi* to *mi*
- Sing Lydian mode from *fa* to *fa*
- Sing Mixolydian mode from *sol* to *sol*
- Sing Aeolian/Natural minor from *la* to *la*
- Sing Locrian mode from *ti* to *ti*

- 0:02 Project the *Notated White-Key Modes* visual (from Lesson 1-A-1), point to one of the modes (in random order now), and solicit individual students to name the mode. Have the class sing and sign each mode on solfege; encourage audiation of the syllables starting on *do* as needed. Repeat to include all modes.
- 0:04 Have students sing the two folk songs learned by rote in Lesson 1-A-1: *God Rest You Merry, Gentlemen* (Aeolian) and *Lovely Joan* (Dorian). Solicit the mode of each and traits that determine this.
- 0:07 Project the *Diatonic Modes in Rotation* visual on the screen (see Lesson 1-W-1). Review the concept of the rotational approach to the diatonic modes.

Distribute to the students Worksheet for Lesson 1-W-2 (see below).

- Guide the students to complete Exercise 1, filling in the proper pitches for each mode in the table. Circulate through the classroom to monitor and guide students as needed.
 - Once this is completed, have the students complete Exercise 2, notating each of the modal scales from the table on separate staff paper using accidentals (not key signatures). Again, circulate through the classroom to monitor and guide students as needed.
 - Have the students name and then sing each of the modes on solfege with hand signs.
 - Project the table for Exercise 3 of the 1-W-2 Worksheet on the screen.
 - Spell one specific mode (OTHER than Ionian) in the table and ask students to spell its “relative” major scale by rotating the given pitches.
 - If time allows, students can spell additional modes in the table.
 - Project the table for Exercise 4 of the 1-W-2 Worksheet on the screen.
 - Identify a specific modal scale (e.g., G-Dorian) and solicit the spelling of that mode, requiring them to apply the appropriate scalar pattern of whole- and half-steps. Fill in this line of the table on the screen and have the students do so on their worksheets.
 - Ask the students to spell its relative major scale in the table via rotation.
 - If time allows, students can spell additional modes in the table.
- 0:20 Applying the scalar patterns of whole- and half-steps on the *Diatonic Modes in Rotation* table (see the worksheet or project on the screen), have the students determine the relative major scale name from a given mode. For example, name A-Mixolydian and have them determine the relative major scale.
- 0:22 Examine and sight-sing selected Bartók melodies (see Materials section) in A-Aeolian, D-Dorian, and G-Mixolydian (white-key modes) on solfege (movable-*do*, *la*-minor). NOTE: This is continued in the following Aural Skills Lesson, 1-A-2.
- Project the selected song on the screen. Consider beginning with the Ionian example.
 - Have the students examine the notated melody to determine the mode. Guide them as needed (ending pitch related to C major since these are white-key modes).

- Guide the students to decide on the proper solfege syllables to use and which syllable to start on. Establish the key center and sing the modal scale on solfege, ascending and descending (audiate starting on *do* as needed).
- Have the students sight-sing the melody on solfege.

0:30 Closure

Exit ticket: Have students submit their worksheets. These can be used for participation points and to determine individual student understanding. Return these to the students (preferably with any formative feedback) at the next session so they can include with their class notes.

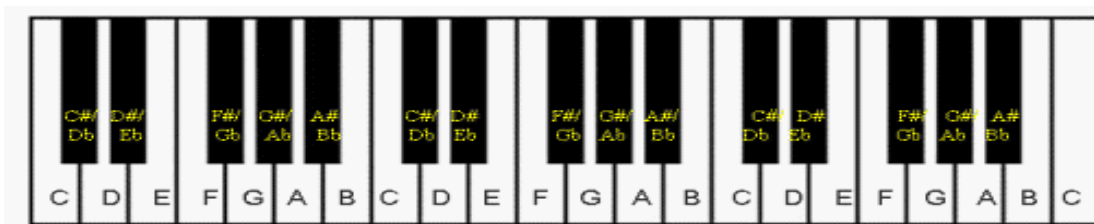
Transition to other content for the remainder of the class time.

Worksheet for Lesson 1-W-2: Diatonic Modes in Rotation

Exercise 1: Diatonic Modes in Rotation.

Complete the table by filling in the proper pitches for each mode.

D-Ionian	D	E	F#	G	A	B	C#	D							
E-Dorian															
F#-Phrygian															
G-Lydian															
A-Mixolydian															
B-Aeolian															
C#-Locrian															
D-Ionian															
W/H Step Pattern		W	W	H	W	W	W	H	W	W	H	W	W	W	H



Exercise 2: Notate each of the modal scales from the table above on separate staff paper using accidentals (not key signatures).

Exercise 3: Use the table below to participate in the instructor-led Ex. 3 activity in class.

Ionian (major)															
Dorian															
Phrygian															
Lydian															
Mixolydian															
Aeolian															
Locrian															
Ionian															
Whole & Half Step Pattern		W	W	H	W	W	W	H	W	W	H	W	W	W	H

Exercise 4: Use the table below to participate in the instructor-led Ex. 4 activity in class.

Ionian (major)															
Dorian															
Phrygian															
Lydian															
Mixolydian															
Aeolian															
Locrian															
Ionian															
Whole & Half Step Pattern		W	W	H	W	W	W	H	W	W	H	W	W	W	H

Lesson 1-A-2: Semester 1, Fundamentals, Aural Skills, Lesson 2

Focus: Singing Modal Melodies on Solfege—Aeolian, Dorian, and Mixolydian

Instructional Time: 25 minutes

Prerequisite Knowledge and Skills for this class

Lesson 1-W-2

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing and sign seven diatonic modes in random order on solfege (using movable-*do*, *la*-minor), ascending and descending.
- Sing by rote simple Dorian and Mixolydian folk melodies.
- Sight-sing notated Aeolian, Dorian, and Mixolydian melodies (white-key modes only) on solfege.
- Aurally differentiate and (hopefully identify) the six non-Ionian modes from Ionian mode/major scale.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Notated white-key modes (all), ascending and descending
 - *Lovely Joan* score
 - Brief instructor-composed examples for sight-singing in G-Mixolydian (optional: A-Aeolian and D-Dorian from Lesson 1-A-1)
- *Scarborough Fair*, Traditional English ballad (Dorian)
- *Old Joe Clark*, Folk Song (Mixolydian)
- Bartók: Mikrokosmos, Sz.107, Vol. 1 No. 14 (Dorian)
- Bartók: Mikrokosmos, Sz.107, Vol. 1 No. 31 Little Dance in Canon Form (Dorian)
- Bartók Mikrokosmos, Sz.107, Vol. 2 No. 48 (Mixolydian)
- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)
- Vaughan Williams: *6 Studies in English Folksong* (1926) for cello and piano No. 3 (Aeolian)

Procedure

0:00 Solicit the names of the seven modes in order (call on individual students)

If needed, prime the answers by asking:

“Which mode starts and ends on do?”; “...re?”, etc.

0:02 Students sing and sign (using Curwen hand signs) all seven diatonic modes *in random order* on solfege using movable-*do*, *la*-minor, ascending and descending.

- Name a mode at random and solicit the starting solfege syllable
- Provide a home tone for *do*, using hand signs have the students audiate syllables until the starting syllable, then begin singing the mode, ascending and descending

- Optional/Encouraged: Have individual students sing the mode.

0:05 Present selected notated modes on the screen (white-key modes only) and have students identify the mode; sing and sign on solfege using movable-*do*, *la*-minor. Correct/repeat if needed.

0:07 Students sing *Lovely Joan* (learned in lesson 1-A-1) either from rote memory or from notation. Solicit mode (Dorian). Sing again on solfege from notation on screen.

0:09 Model *Scarborough Fair*. (Optional: A week earlier, assign a student or student group to learn and prepare to rote teach the song to the class.)

Solicit whether the melody is Aeolian or Dorian. Students need not be certain to move ahead with the next step.

Teach *Scarborough Fair* by rote (echo-teach each phrase).

Help students confirm that the melody is Dorian and why.

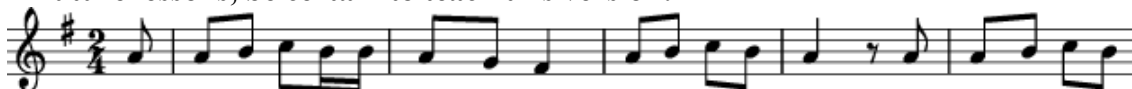
0:12 Model *Old Joe Clark*. (Optional: A week earlier, assign a student or student group to learn and prepare to rote teach the song to the class.)

Solicit the mode of the melody. Students need not be certain to move ahead with the next step.

Teach *Old Joe Clark* by rote (echo-teach each phrase).

Help students confirm that the melody is Mixolydian and why.

IMPORTANT NOTE: Because folk songs vary (and some versions can be found that have been changed to major!!) and the purpose of this folk song is very specific in future lessons, be certain to teach this version:



I used to live on the moun- tain top, Now I live in town; I'm stay- ing at the



big ho- tel, Cour- tin' Bet- sy Brown Fare thee well, Old Joe Clark



Fare- the well I'm bound, Fare thee well, Old Joe Clark, Good- bye Bet- sy Brown.

0:15 Students sight-sing brief instructor-composed G-Mixolydian melodies on solfege (movable-*do*, *la*-minor); also A-Aeolian and D-Dorian, if time allows.

0:18 Students sight-sing Bartók melodies (see Materials section) in A-Aeolian, D-Dorian, and G-Mixolydian (white-key modes) on solfege (movable-*do*, *la*-minor).

0:22 Students differentiate performed modes as either Major/Ionian or non-Ionian. Instructor can perform the modes and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect. Challenge the students to specify the mode when it is non-Ionian.

0:25 Closure

Encourage students to continue singing the learned melodies as independent practice to reinforce the sounds of Aeolian, Dorian, and Mixolydian modes. Challenge them to sing them on solfege. (Post the notated melodies on the course LMP/website for student access.)

Transition to other aural skills content for the remainder of the class time.

Extension (if time allows during this lesson or for future lesson):

Sight-sing Aeolian melodies by Vaughan Williams: one-sharp and one-flat, guiding them to discover relative minor relationships as key signatures are introduced.

Lesson 1-W-3: Semester 1, Fundamentals, Written Theory, Lesson 3

Focus: Categorizing Major and Minor Modes; Notating Modes with Key Signatures

Instructional Time: 25 minutes

Prerequisite Knowledge and Skills

NOTE: A gap of several weeks will occur between lessons 1-W-2 / 1-A-2 and this lesson, allowing for all of the following prerequisites to be in place as part of traditional theory instruction.

- Master the concepts of staff, keyboard (be able to visualize keyboard), clefs, octave, enharmonic equivalents of pitch, etc.
- Sing major scale, minor scale(s), and diatonic modes on solfege
- Notate major scale and minor scale(s) on the staff using accidentals and key signatures
- Comprehend “circle-of-fifths”—the arrangement of the tonics of the 12 major or minor keys by ascending or descending perfect 5ths: C–G–D–A–E–B–F♯ = G♭–D♭–A♭–E♭–B♭–F–C
- Use the circle of fifths to determine key signature, memorize the order of flats and sharps: F – C – G – D – A – E – B (Father Charles Goes Down And Ends Battle) mnemonic device
- Differentiate relative major/minor relationship (same key signature) from parallel major/minor relationship (same tonic)
- Name diatonic intervals between scale degrees (m2, M2, m3, M3, P4, P5, m6, M6, m7, M7)
- Identify key (major/minor) of selected music excerpts (melody only)
- 1-W-1, 1-W-2, 1-A-1, and 1-A-2

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Categorize all of the modes as either major or minor.
- Demonstrate understanding of the intervallic differentiation between the major third and minor third.
- Spell and notate all seven modes using key signatures.
- Demonstrate understanding of the relative relationship between major and all other modes.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Diatonic Modes & Rotation table (see Lesson 1-W-1)
- Students need staff paper and pencil

Procedures

0:00 Solicit the names of the seven modes in order and the solfege syllable that serves as the tonic. If needed, prime the answers by asking:

“Which mode starts and ends on do?”; “...re?”, etc.

0:01 Students sing and sign (using Curwen hand signs) all seven diatonic modes on solfege, ascending and descending.

- Start by singing a major scale.

- Maintaining the same *do*, select one student to sing the Dorian mode on solfege, ascending and descending. Ask other students to evaluate the accuracy of the performance (encourage positivity and polite constructive criticism). Have all students sing the Dorian mode together.
 - Continue in this manner with each of the modes in order.
- 0:05 Determining relative modes (rotational) from given key signatures
- Project a blank *Diatonic Modes & Rotation* table (see Lesson 1-W-1) on the screen
 - Encourage the students to create their own grid in their notes and complete as the activity progresses
 - State a key signature (e.g., two flats, three sharps, etc.)
 - Ask the students to list the specific flats/sharps (see Prerequisite Knowledge and Skills for this plan). Write these on the whiteboard staff as the students list them. Guide and correct as needed.
 - Ask the students to identify the major key corresponding to the given key signature (see Prerequisite Knowledge and Skills for this plan). Integrate a review of how to determine this.
 - Solicit the spelling of the major scale and write this spelling in the table.
 - Solicit the spelling of at least two other relative modes (random order now is best), applying rotation, and write these in the table.
 - Repeat this instructional sequence for several different key signatures, being certain to include both flat- and sharp-keys.
 - Summarize the above by guiding the students to conclude that all relative modes share the same key signature. Use the final example from the above to reinforce this (e.g., D-Ionian/major, E-Dorian, F#-Phrygian, G-Lydian, A-Mixolydian, B-Aeolian, and C#-Locrian all share the same key signature—two sharps.)
- 0:10 Comparison and categorization of major and minor modes
- Ask the students: “Recalling the concept of parallel major and minor, which scale degree (if you can name only one) differentiates a minor scale from a major scale?” (Scale degree 3)
 - Solicit the specifics of this difference. Guide students to think about the intervals between scale degrees 1 and 3, respectively. Guiding questions:
 - What quality of third is between scale degrees 1 and 3 in major? Minor?
 - How many half steps are in a major third?
 - How many half steps are in a minor third?
 - Transfer this concept to each of the other modes. Guide the students to discover which modes have a major third between scale degrees 1 and 3 and which have a minor third.
 - Major: Lydian, Mixolydian, Major/Ionian
 - Minor: Dorian, Phrygian, Aeolian, Locrian

- Explain: Post Common Practice Period (clarify this, if needed), music theorists typically classify the modes into these two categories because we tend to hear music as either major or minor.

Pedagogical Note: While the above is related to the transpositional approach, it is very important for students to understand the rotational approach first. The transpositional approach is introduced later; avoid complicating instruction at this point with any additional commentary related to transposition.

0:15 Application: Key Signature and Relative Modes

- Review the relative major/minor relationship.
 - Solicit how to determine the relative minor of a major key (scale degree 6 or down a minor 3rd). Guide practice with a few examples: Give a major key and solicit the relative minor.
 - Solicit how to determine the relative major of a minor key (scale degree 3 or up a minor 3rd). Guide practice with a few examples: Give a minor key and solicit the relative major.
- Transfer this concept to all modes
 - Guide the students to determine the interval relationship between the major key each of the other modes. Remind them to think of the white key modes and their relationship to C-major, then transfer this to any/all other keys (application of solfege syllables will be helpful as well).
 - Guide practice with a few examples: Give a major key and solicit specified relative modes. For example, “The relative Mixolydian of F Major is _____.” (C-Mixolydian). Solicit explanations of how the answer was determined to assure understanding.
- Practice notating modes on the staff using key signatures. Ideally, have the students notate on their own staff paper while selected students work at the whiteboard and/or share later. Circulate through the classroom to monitor and guide students as needed.
 - Level 1: Provide a key signature, students notate the major scale in that key, then notate the other modes sharing the same key signature (all in order) and label with the correct names.
 - Level 2: Provide a key signature, students notate all the major (or minor) modes in that key.
 - Level 3: Ask students to notate a specific mode (e.g., F-Dorian). Students must determine the key signature first (i.e., use the rotational approach to find the relative major of the given mode).

0:25 Closure

Exit ticket: Have students submit their mode notation staff papers. These can be used for participation points and to determine individual student understanding. Encourage them to practice determining relative modes from given major keys.

Transition to other content for the remainder of the class time.

Lesson 1-A-3: Semester 1, Fundamentals, Aural Skills, Lesson 3

Focus: Singing Modal Melodies with Key Signatures

Instructional Time: 20 minutes

Prerequisite Knowledge and Skills for this class

Lesson 1-W-3

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing on solfege and sign three major modes as a group and four minor modes as a group, respectively.
- Sing modal scales on solfege using notated rhythmic patterns, ascending and descending.
- Sing and differentiate diatonic major thirds (*do-mi; fa-la; sol-ti*) and minor thirds (*re-fa; mi-sol; la-do; ti-re*).
- Sing on solfege all seven modes notated with key signatures.
- Sight-sing on solfege notated Aeolian, Dorian, and Mixolydian melodies (with and without key signatures).
- Aurally differentiate major modes from minor modes.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythm patterns in simple meter (for mode scale singing)
 - Solfege Ladder (optional)
 - One scale example for each mode in various key signatures
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 31 Little Dance in Canon Form (Dorian)
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 32, In Dorian Mode
- Bartók: *Mikrokosmos*, Sz.107, Vol. 2 No. 48 (Mixolydian)
- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)
- Vaughan Williams: *6 Studies in English Folksong* for cello and piano No. 3 (Aeolian)

Possible Aural Identification Examples

- Bartók: *Mikrokosmos I*, No. 28, Canon at the Octave (E-Phrygian)
- Bartók: *Mikrokosmos I*, No. 34, In Phrygian Mode (E-Phrygian)
- Czech Folk Songs by Anna Hradsky (Lydian)

Procedures

0:00 Solicit the names of the three major modes (Ionian, Lydian, Mixolydian). Students sing and sign each on solfege using movable-*do*, *la*-minor, ascending and descending.

Solicit the names of the four minor modes (Dorian, Phrygian, Aeolian, Locrian). Students sing and sign each on solfege using movable-*do*, *la*-minor, ascending and descending.

- 0:02 Project the one-beat rhythm patterns in simple meter on the screen. Select two and have the students sing a given mode scale, ascending and descending, using those patterns. For example, using this pattern:



Sing: do re re mi fa fa

Mix and match patterns and modes.

- 0:04 Students sing the following pattern (Thirds Ladder) while signing, echoing each two-syllable interval with its proper label of “major third” or “minor third”:
 do-mi, major third; re-fa, minor third; mi-so, minor third; fa-la, major third;
 so-ti, major third; la-do, minor third; ti-re, minor third; do ---;
 do-la, minor third; ti-so, major third; la-fa, major third; so-mi, minor third;
 fa-re, minor third; mi-do, major third; re-ti, minor third; do ---.

Note: If necessary, project a solfege ladder on the screen for the first attempts at this.

- 0:07 Students sing mode scale examples on solfege from notation projected on screen: one scale example for each mode in various key signatures.
- 0:10 Sight-sing Bartók and Vaughan Williams melodies (see Materials section) on solfege (movable-*do*, *la*-minor). These begin to include key signatures.
- 0:15 Students differentiate performed modes as either a major mode or a minor mode. Instructor can perform the modes and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect. Challenge the students to specify the mode as well.

- 0:20 Closure
 Encourage students to sing the Thirds Ladder as independent practice to reinforce

Transition to other aural skills content for the remainder of the class time.

Extension (if time allows during this lesson or for future lesson):
 Play/Perform the Aural Identification Examples (see Materials section) and have students identify the mode.

Lesson 1-W-4: Semester 1, Fundamentals, Written Theory, Lesson 4

Focus: Aeolian (natural minor), Harmonic Minor, and Dorian

Instructional Time: 45 minutes

Prerequisite Knowledge and Skills

Lesson 1-W-3, 1-A-3

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Differentiate the scalar patterns of three minor scales—harmonic minor, Aeolian/natural minor, and Dorian.
- Demonstrate understanding of focus intervals (between scale degrees 1 and 6 and scale degrees 1 and 7) in three minor modes.
- Compare and contrast the rotational and transpositional approaches to modes.
- Spell/notate three minor scales on the same starting pitch using accidentals (transpositional approach, scalar comparison among parallel minor modes).
- Spell/notate parallel Aeolian and Dorian scale(s) using key signatures.
- Identify Aeolian and Dorian melodies that were written using both key signature approaches
- Sing notated Aeolian and Dorian melodies on solfege after identification.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Comparing *Aeolian, Harmonic Minor, and Dorian* visual (see below)
- Students need staff paper and pencil
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 5. The Lamb, for Tenor and Oboe (Aeolian)
- Vaughan Williams: *6 Studies in English Folksong* for cello (clarinet) and piano No. 3 (Aeolian)
- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)
- *Greensleeves (What Child is This?)* (Aeolian and/or Dorian)
- Ralph Greaves's arrangement of *Fantasia on "Greensleeves"* from Vaughan Williams's opera *Sir John in Love*.
- The Beatles, "Eleanor Rigby" (Dorian)
- Nagel: *Twelve Easy Little Pieces in Twelve Different Modes*, No. 7. March of the Toy Horses (Dorian)
- Nagel: WTM, *Songs from the Dorian*, No. 1, Breeze (Dorian)
- Nagel: WTM, *Songs from the Dorian*, No. 3, Moderato (Dorian)

Procedures

0:00 Solicit the names of the four minor modes and the solfege syllable that serves as the tonic for each. Have students sing and sign each on solfege, ascending and descending.

Have students sing Aeolian mode again, then sing a harmonic minor scale starting on the same pitch. Students may struggle with the augmented second interval and its associated chromatic syllable (*si*).

- Isolate the intervallic differences between isolate *la-so-la* and *la-si-la* and then the patterns *fa-si-la* and *fa-so-la*.
- Sing full scales: natural minor then harmonic minor.

Solicit the whole and half-step scalar pattern for Aeolian (W-H-W-W-H-W-W).

Write this pattern on the whiteboard (for use later in the lesson).

- Encourage them to think of the white-key Aeolian scale (A), spell it, and determine the scalar pattern.

Solicit the whole and half-step scalar pattern for Harmonic Minor (W-H-W-W-H-A2-H)

Write this pattern on the whiteboard (for use later in the lesson).

- Encourage them to identify the change made to Aeolian to make it Harmonic Minor, and the resulting change in spelling and interval.

0:07 Introduction to the Transpositional perspective.

- Solicit the whole and half-step scalar pattern for Dorian (W-H-W-W-W-H-W). Write this pattern on the whiteboard (for use later in the lesson).
- Encourage them to think of the white-key Dorian mode (D), spell it, and determine the scalar pattern.
- Have the students apply this pattern to create the A-Dorian mode. Solicit the spelling and notate the scale on the whiteboard staff.
- This approach to mode relationships is termed *Transpositional*.
 - *Rotational*: Relative relationships where the modes share the same key signature (and, therefore, all the same pitches)
 - C major and A minor are relatives; they have a rotational relationship (same key signature and pitches)
 - *Transpositional*: Parallel relationships where the modes share the same tonic.
 - C major and C minor are parallels; they have a transpositional relationship (same tonic)

0:12 Application and Practice with Transpositional Perspective: Comparing Aeolian, Harmonic Minor, and Dorian

- Have students compare the whole- and half-step scalar patterns for Aeolian, Harmonic Minor, and Dorian (see whiteboard from previous activity). Guide them to notice that:
 - The first four intervals (the intervallic pattern) are the same: W-H-W-W, resulting in a P5 between scale degrees 1 and 5.
 - Scale degrees 6 and 7 differentiate these three minor modes (see *Comparing Aeolian, Harmonic Minor, and Dorian* visual)

- Harmonic Minor has a raised 7th (leading tone) compared to Aeolian and Dorian (subtonic)
- Dorian mode has a raised 6th compared to Aeolian and Harmonic Minor

Comparing Aeolian, Harmonic Minor, and Dorian

	Aeolian	Harmonic Minor	Dorian
Interval between tonic and SD 6	Minor sixth (m6) P5 + H	Minor sixth (m6) P5 + H	Major sixth (M6) P5 + W
Interval between tonic and SD 7	Minor seventh (m7) P5 + m3 (H + W)	Major seventh (M7) P5 + M3 (H + A2/m3)	Minor seventh (m7) P5 + m3 (W + H)
Syllables in la-minor	la – fa; la – so	la – fa; la – si	re – ti; re – do
Syllables in do-minor	do – le; do – te	do – le; do – ti	do – la; do – te

- Have students spell and notate on staff paper C-Aeolian mode. They may arrive at this from the key signature of the relative of Eb Major OR via the scalar pattern.
- Have students spell and notate on staff paper C Harmonic Minor. Guide them to remember/recognize that only one note needs to be changed from C-Aeolian mode
- Have students spell/notate and notate on staff paper C-Dorian mode using accidentals. Guide them to remember/recognize that only one note needs to be changed from C-Aeolian mode
- Solicit what the key signature for C-Dorian would be and why (2 flats; relative of Bb Major)
- Summary Discussion
 - Ask students why we need to compare scalar patterns (purpose, intention, objective). Guide students to discover the answer, emphasizing two points:
 - Multidimensional thinking: multiple ways of solving problems and always good for double-checking
 - *Key signature use in authentic modal compositions is not consistent.* Composers frequently use traditional major/minor key signatures with constant accidentals in modal compositions. For example, C-Dorian would have 3 flats in the key signature because it is parallel to C-Minor; then all occurrences of A would have a natural sign. It is challenging to know composers' original intentions based only on the key signature. Therefore, key signature should NOT be the only criterion to consider when determining the tonal center/tonality of any composition. Rather, determine the principal scale used in the composition by analyzing pitch relationships.

0:20 Singing Parallel Modes:

- Have the students sing the three parallel minor scales they notated in previous exercise (C Aeolian, C Harmonic Minor, and C-Dorian on solfege) using movable-do, la-minor (audiating do-re first). Sing in this order: Aeolian (natural minor)—Harmonic Minor—Aeolian—Dorian.

- Optional: Have the students sing the three minor scales on solfege using movable-do, do-minor.

0:22 Aeolian or Dorian?

- Solicit of students if any know Greensleeves (or the Christmas carol "*What Child Is This?*", perhaps).
 - If any are comfortable doing, so, invite them to sing it. Take note of the melodic version. Perhaps it will even be noticeable that differences occur among the students. If so, use this to lead to discovery.
- Play two or three different versions of Greensleeves on piano (melody only); ask students to listen very carefully for the differences (since it is a well-known tune).
 - Dorian mode with raised seventh scale degree used in cadences (leading tone effect)
 - A combination of Dorian and Aeolian (alternate between regular and raised sixth scale degrees) http://openhymnal.org/Pdf/What_Child_Is_This-Greensleeves.pdf
 - Aeolian mode with raised sixth and seventh scale degrees used in cadences.
 - http://ia600501.us.archive.org/2/items/Cantorian_sheet_music_collection_3/f82c06abcc9f14b253fdcf2082bca8b6.pdf#track_/download/629/f82c06abcc9f14b253fdcf2082bca8b6/Greensleeves%20SATB%20-%20SATB.pdf
 - <http://d.cdn2.semplicewebsites.com/download/4125/7579458d7363df376ffd6aebf4bb9bee/Greensleeves%20What%20Child%20is%20This%3F%20-%20SATB.pdf>
- Lead a discussion to help students identify the differences.
 - AFTER doing this aurally, project the scores on the screen, have the students read on solfege, and then identify the scale/mode/scalar pattern used in each music excerpt. Play each again, if needed.
 - Share from the following:
 "*Greensleeves*," a traditional English folk tune, is found in several late-16th-century and early-17th-century sources, as well as various manuscripts. Christmas and New Year texts were often associated with the tune. One of the most popular Christmas carols is "*What Child Is This?*" written in 1865 by William Chatterton Dix. There is a long-running debate about whether Greensleeves was originally written in Dorian mode or Aeolian mode (whether raised sixth scale degree or not). Since various versions of score arrangements and recordings of this famous tune have existed over 400 years, the debate may exist forever, and we may never discover the authentic origin about this song. The duality, however, makes it unique to serve as a great example in teaching, to help students hear the slight difference among various scalar patterns (Dorian or Aeolian).

0:30 Examine and sight-sing selected melodies (see Materials section) in Aeolian and Dorian on solfege (movable-do, la-minor).

NOTE: This is continued in the following Aural Skills Lesson, 1-A-4.

- Project the selected song on the screen.

- Have the students examine the notated melody to determine the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

0:40 Summary and Extension

- Ask students to name a key signature, then spell and notate together the Aeolian and Dorian modes in that key (e.g., two flats, G-Aeolian and C-Dorian, emphasize once more their relative relationship)
- Guide students to discover different approaches to quickly determine the key signature of a given mode. For example, “What is the key signature of G-Dorian?”
 - Use the Dorian scalar pattern to spell/notate the mode starting on G, then figure out the key signature by counting the accidentals.
 - Find its relative major (intervallic relationship): G-Dorian and F-major are relative modes, F-major has one flat, so that is the key signature for G-Dorian.
 - Compare its parallel minor (Aeolian): only one note needs to be changed. In this case, from G-Aeolian to G-Dorian, only the sixth scale degree needs to be raised a half step higher (E-flat becomes E-natural). Therefore, G-Dorian has one flat key signature.

0:45 Closure

Encourage students to practice two different versions of Greensleeves on their own instruments (voice majors on piano if no other instrument experience). Post the scores on the course webpage. Assign them to bring their own instruments to the next class meeting and be prepared to perform the version of their choice. Encourage them to work together, if desired (unison ensemble performance).

Lesson 1-A-4: Semester 1, Fundamentals, Aural Skills, Lesson 4

Focus: Singing Two Minor Modes—Aeolian and Dorian

Instructional Time: 20 minutes

Prerequisite Knowledge and Skills for this class

Lesson 1-W-4

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing Aeolian and Dorian modes using notated rhythmic patterns on solfege, ascending and descending.
- Sing and differentiate diatonic major sixths (do-la; re-ti; fa-re; sol-mi) and minor sixths (mi-do; la-fa; ti-sol) on solfege and neutral syllables.
- Improvise brief melodies in Aeolian and Dorian.
- Sight-sing on solfege notated Aeolian and Dorian melodies (with and without key signatures).
- Aurally identify three minor scales—harmonic minor scale, Aeolian mode, and Dorian mode.
- Aurally identify modal melodies in Aeolian and Dorian (advanced).

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythm patterns in simple meter (for mode scale singing)
- Nagel: WTM, *Songs from the Dorian*, No. 1, Breeze (Dorian)
- Nagel: WTM, *Songs from the Dorian*, No. 3, Moderato (Dorian)
- Nagel: *Twelve Easy Little Pieces in Twelve Different Modes*, No. 7. March of the Toy Horses (Dorian)
- The Beatles, “Eleanor Rigby” (Dorian)
- *Greensleeves (What Child is This?)* (Aeolian and/or Dorian)
- Ralph Greaves's arrangement of *Fantasia on "Greensleeves"* from Vaughan Williams's opera *Sir John in Love*
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 5. The Lamb, for Tenor and Oboe (Aeolian)
- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)

Procedures

0:00 Project the one-beat rhythm patterns in simple meter on the screen. Select two and have the students sing Aeolian and Dorian scales, ascending and descending, using those patterns. For example, using this pattern:



Sing: re mi mi fa so so

Mix and match patterns and modes.

0:02 Students sing the following pattern (Sixths Ladder) while signing, echoing each two-syllable interval with its proper label of “major sixth” or “minor sixth”:

(Establish a *do* of low A or Ab to allow for a reasonable range for singing)

do-la, major sixth; re-ti, major sixth; mi-do, minor sixth; fa-re, major sixth;
so-mi, major sixth; la-fa, minor sixth; ti-so, minor sixth; do ---;

Optional:

(Re-establish a *do* of high Eb to allow for a reasonable range for singing)

do-mi, minor sixth; ti-re, major sixth; la-do, major sixth; so-ti, minor sixth;
fa-la, minor sixth; mi-so, major sixth; re-fa, minor sixth; do ---.

Note: If necessary, project a solfege ladder on the screen for the first attempts at this.

Optional: Have students try on a neutral syllable (pa)

0:07 Students improvise four-measure (4/4) diatonic melodies in Aeolian and Dorian on solfege (movable-do, la-minor) using simple meter patterns. The rhythm patterns can be projected on the screen again, if needed. Students should start and end melodies on the tonic pitch/syllable. This can be “chained”: one student immediately follows the next (staying in the same mode).
Assessment Suggestion: This and other activities can now begin to count for participation points.

0:12 Students differentiate performed minor scales as either harmonic minor scale, Aeolian mode, or Dorian mode. Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.

0:15 Students identify performed melodies as Aeolian or Dorian. Play or instructor/students perform the examples in the Materials section and have students identify the mode.

0:20 Closure
Encourage students to sing the Sixths Ladder as independent practice to reinforce

Transition to other aural skills content for the remainder of the class time.

Lesson 1-W-5: Semester 1, Fundamentals, Written Theory, Lesson 5

Focus: Mixolydian Mode & Review

Instructional Time: 40 minutes

Prerequisite Knowledge and Skills

Lesson 1-W-4, 1-A-4

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Differentiate the scalar pattern of Mixolydian mode from that of the major scale.
- Sing Mixolydian mode on solfege using both movable-do, la-minor and movable-do, do-minor approaches.
- Spell/notate the relative and parallel Mixolydian mode of a given major key using both accidentals and key signatures.
- Sing notated Mixolydian melodies on solfege after identification.
- Identify Mixolydian melodies that were written using both key signature approaches.
- Demonstrate an understanding and application of information learned about modes in previous lessons.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Comparing *Aeolian, Harmonic Minor, and Dorian* visual (see Lesson 1-W-4)
 - Lyrics to *Old Joe Clark*
 - Score to *Old Joe Clark* (see Lesson 1-A-2; the version is very important)
 - *Comparing Major/Ionian and Mixolydian* visual
- Students need staff paper and pencil
- *Old Joe Clark*, Folk Song
- Vaughan Williams: *Blackwore by the Stour* for voice and piano
- Nagel: *The Well-Tempered Mode, Songs from the Mixolydian*, No. 1, With a Singing Spirit
- Nagel: *Twelve Easy Little Pieces in Twelve Different Modes*, No. 9, Scottish Lullaby

Procedures

0:00 Briefly introduce the opening activity with *Greensleeves* (assigned as homework at end of Lesson 1-W-4).

“Students will perform one of the versions of *Greensleeves*—Dorian or Harmonic Minor. We will identify which scale/mode is used.”

Request volunteer(s) for the first performance. Have students identify the scale/mode. Provide guidance as needed (including possibly having the performers re-play specific measures). Repeat this a few times as time allows.

- 0:05 Review three minor modes: Aeolian, Harmonic Minor, and Dorian
- Ask students to spell and notate on staff paper the Dorian mode that has two flats.
 - Scaffolding, if necessary:
 - Consider the rotational approach
 - What major key has two flats?
 - What would the relative Dorian of that key be?
 - Ask students to spell and notate on staff paper the F# Aeolian mode and the F# harmonic minor scale
 - Scaffolding, if necessary:
 - Consider relative major
 - What is the relative major of F# minor?
 - What would the key signature be?
 - Aeolian = natural minor, so spell that scale
 - What changes need to be made to the Aeolian scale to make it Harmonic Minor?
 - Ask students to spell and notate on staff paper the F# Dorian mode
 - Scaffolding, if necessary:
 - Consider scalar pattern comparison
 - What changes need to be made to the Aeolian mode to make it Dorian?
 - Have students compare the three F# minor modes/scales. What intervals are different?
 - Reference and/or display *Comparing Aeolian, Harmonic Minor, and Dorian* visual from Lesson 1-W-4 if needed.
 - Have students sing three minor modes/scales on solfege: Aeolian, Harmonic Minor, and Dorian
 - Using movable-do, la-minor
 - Using movable-do, do-minor, if possible
 - Transitional Question: “What is the most obvious difference between minor modes and major modes?”
- 0:15 Introduction to the Mixolydian mode
- Play *Old Joe Clark* melody on piano (or other instrument). Students should recognize the tune immediately since they sang it in 1-A-2.
 - Display lyrics on the screen. Have students sing *Old Joe Clark* with piano accompaniment.
 - Play the original ending (last 4 measures) slowly once more and then play an alternative version of the ending by raising the seventh scale degree (only the penultimate note should be changed)
 - Ask the students to identify/describe the difference they heard between these two versions (they may need to be told that the song ends on the tonic).
 - If the students struggle to answer at first, encourage them to sing/hum along with the two melodies while the two versions are played again.

- Display the notated score on the screen and ask students to determine the scale/mode used in the melody. Have them sing the Mixolydian mode ascending and descending (using moveable-do, la-minor).
- Have the students sight-sing the notated *Old Joe Clark* on solfege

0:20 Comparison of scalar patterns (Mixolydian vs. Major/Ionian)

- Ask students to notate the Mixolydian scale (the one they just sang) on staff paper and label it with the accurate name: D-Mixolydian
- Have the students notate the major scale sharing the same tonic with the Mixolydian scale
 - Questions:
 - What is the mode name for Major? (Ionian)
 - What is the label for the relationship between two different scales that have the same tonic? (parallel)
- Have the students identify and then compare the scalar patterns of these two modes
 - Major scale pattern: W-W-H-W-W-W-H
 - Mixolydian pattern: W-W-H-W-W-H-W
 - Points of comparison (reference *Comparing Major/Ionian and Mixolydian* visual)
 - The first five intervals (intervallic pattern) are the same (resulting in a M6 between tonic and scale degree 6 for both)
 - Scale degree 7 is different; this is what differentiates these two major modes (leading tone in Major/Ionian vs. subtonic in Mixolydian)
 - Mixolydian is a major scale with a lowered seventh scale degree; flat-seventh
 - Review: Solicit which scale degree differentiates Aeolian from Dorian

Comparing Major/Ionian and Mixolydian

	Major Scale/Ionian	Mixolydian
Intervals between tonic and scale degree 7 th	Major Seventh M7 M6 + W	Minor Seventh m7 M6 + H
Syllable in la-minor	do – ti	sol – fa
Syllable in do-minor	do – ti	do – te

0:25 Review the two approaches of using key signature in modal compositions

- Solicit: What are the two primary ways composers use key signatures in modal compositions?
 - *Rotational*: Use of relative major key signature (no need for accidentals)
 - *Transpositional*: Use of parallel major or minor key signature (with accidentals to modify as needed)
 - Dorian (and Phrygian and Locrian), as a minor mode, would use the parallel *minor* key signature
 - Mixolydian (and Lydian), as a major mode, would use the parallel *major* key signature

- Practice:
 - Name a tonic pitch; have the students spell and notate on staff paper the two parallel major modes, Major and Mixolydian, using key signature
 - Example: D-Major and D-Mixolydian
 - Guide students to determine that both would have key sigs of two sharps; Mixolydian would then have C-natural accidentals throughout.
 - Provide a specific key signature; have students spell and notate on staff paper the Mixolydian mode in that key
 - Example: Key signature with one sharp
 - Scaffolding, if necessary:
 - Determine major key with 1 sharp, spell scale, rotate to Mixolydian (*so to so*)
 - Conclusion: Being a major mode, D-Mixolydian could have a key signature of one sharp (rotational: relative to G-Major) or two sharps (transpositional: parallel to D-Major and then with all C-natural accidentals)
- Ask students to spell and notate on staff paper the

0:30 Singing major modes

- Have the students sing the two parallel major modes they notated in previous exercise (D-Major and D-Mixolydian) on solfege (movable-*do*, *la*-minor)
 - Sing Major/Ionian
 - Sing Mixolydian
 - Guide them to audiate the relative *do* of G-Major and then sing *so to so*
- Have the students sing these two parallel major modes using movable-*do*, *do*-minor
 - Same syllables now except use of *te* in Mixolydian.

0:32 Examine and sight-sing selected melodies (see Materials section) in Mixolydian on solfege (movable-*do*, *la*-minor).

NOTE: This is continued in the following Aural Skills Lesson, 1-A-5.

- Project the selected song on the screen.
- Have the students examine the notated melody to determine the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

0:40 Closure

Encourage students to practice notating Mixolydian scales using both rotational (relative key) and transpositional (parallel key) approaches.

Lesson 1-A-5: Semester 1, Fundamentals, Aural Skills, Lesson 5

Focus: Singing Mixolydian Mode

Instructional Time: 25 minutes

Prerequisite Knowledge and Skills for this class

Lesson 1-W-5

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing Mixolydian mode using notated rhythmic patterns on solfege, ascending and descending.
- Sing and differentiate diatonic major sevenths (*do-ti; fa-mi*) and diatonic minor sevenths (*re-do; mi-re; sol-fa; la-sol; ti-la*) on solfege and neutral syllables.
- Improvise brief melodies in Mixolydian.
- Sight-sing on solfege notated Mixolydian melodies (with and without key signatures).
- Aurally identify two major scales—Ionian and Mixolydian.
- Aurally identify modal melodies in Mixolydian.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythm patterns in simple meter (for mode scale singing)
- Vaughan Williams: *Blackwore by the Stour* for voice and piano (Mixolydian)
- Vaughan Williams: *6 Studies in English Folksong* for cello and piano, No. 4. (Mixolydian)
- *Over the Sea to Skye*, Arranged by Douglas E. Wagner (Mixolydian)
- Jody Nagel: *The Well-Tempered Mode, Songs from the Mixolydian*, No. 1, With a Singing Spirit (Mixolydian)
- Jody Nagel: *Twelve Easy Little Pieces in Twelve Different Modes*, No. 9, Scottish Lullaby (Mixolydian)

Procedure

0:00 Project the one-beat rhythm patterns in simple meter on the screen. Select two and have the students sing Mixolydian scales, ascending and descending, using those patterns. For example, using this pattern:



Sing: so la la ti do do

Mix and match patterns.

0:02 Students sing the following pattern (Sevenths Ladder) while signing, echoing each two-syllable interval with its proper label of “major seventh” or “minor seventh”:

(Establish a *do* of low A or Ab to allow for a relatively reasonable range for singing)
do-ti, major seventh; re-do, minor seventh; mi-re, minor seventh; fa-mi, major seventh; so-fa, minor seventh; la-so, minor seventh; ti-la, minor seventh; do ---;

Note: If necessary, project a solfege ladder on the screen for the first attempts at this.

Optional: Have students try on a neutral syllable (pa)

- 0:07 Students improvise four-measure (4/4) diatonic melodies in Mixolydian on solfege (movable-do, la-minor) using simple meter patterns. The rhythm patterns can be projected on the screen again, if needed. Students should start and end melodies on the tonic pitch/syllable. This can be “chained”: one student immediately follows the next (staying in the same mode).
Assessment Suggestion: This and other activities can now begin to count for participation points.
Note: If time allows, students may also improvise some Dorian melodies.
- 0:12 Sight-sing selected Mixolydian melodies (see Materials section) on solfege (movable-*do*, *la*-minor). These now include key signatures.
- 0:17 Students differentiate performed scales as either Ionian or Mixolydian. Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.
- 0:20 Students identify performed melodies as Mixolydian or Ionian. Play or instructor/students perform the examples in the Materials section and have students identify the mode.
- 0:25 Closure
Encourage students to sing the Sevenths Ladder as independent practice to reinforce.

Transition to other aural skills content for the remainder of the class time.

Lesson 2-W-1: Semester 2, Harmony, Written Theory, Lesson 1

Focus: Phrygian Mode & Review

Instructional Time: 35 minutes

Prerequisite Knowledge and Skills

- Master all the required theory fundamentals: pitch (staff, keyboard, clefs), Rhythm and Meter, Scales (diatonic modes), Intervals, Triads
- 1-W-5 and all previous mode studies
- Sequencing suggestions:
 - Teach this lesson after cadence study (providing context for Phrygian cadence)
 - In the weeks leading up to this first lesson on modes in Semester 2, students should sing all the modes on solfege and sight-sing modal repertoire in Aural Skills class to review the concept and sounds of the diatonic modes.

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Differentiate the scalar pattern of Phrygian mode from the scalar patterns of other minor modes (Aeolian, Dorian, and harmonic minor).
- Sing Phrygian mode on solfege (la-minor) starting on any given pitch.
- Notate Phrygian mode on the staff using rotational and transpositional approaches.
- Identify Phrygian melodies that were written using both key signature approaches: rotational—modal key signature system; transpositional—traditional major/minor key signature system with accidentals.
- Sing notated Phrygian melodies on solfege after identification.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - *Comparing Aeolian, Harmonic Minor, Dorian, and Phrygian* visual (see below)
 - Notated Phrygian half cadence: iv⁶ – V
- Students need staff paper and pencil
- J. S. Bach *Aus tiefer Not schrei ich zu dir*, BWV 38
- Martin Luther's Phrygian hymn (chorale) *Aus tiefer Not schrei ich zu dir*
- Bartók: *Mikrokosmos I*, No. 28, Canon at the Octave
- Bartók: *Mikrokosmos I*, No. 34, In Phrygian Mode
- Chopin's Mazurka in C# minor, Op. 41, No. 1

Procedures

0:00 Introduction to the Phrygian mode

- Play a recording of Bach's *Aus tiefer Not schrei ich zu dir*, BWV 38, last movement, chorale (approximately 1 minute). Direct the students to listen to the melody for any modal tendencies.

- Briefly comment that this melody was composed by Martin Luther, and the tune was used by other composers as well.
 - Optional: Locate and play recordings of any performance of Luther’s tune, “Aus tiefer Not schrei ich zu dir”
- Play the melody of the chorale on the piano; ask the students whether it sounds like any of the modes learned before.
 - Guide them to listen to the ends of the phrases, noting the three melodic cadences that end with a descending half step. Help them recall the mode that starts with a half-step between the tonic and second scale degree; the mode that is sung *mi* to *mi* on solfege.
- Have the students sing the Phrygian mode on solfege (movable-do, la-minor)
 - Provide a home tone for *do*, students audiate “do re” and sing *mi* to *mi*, ascending and descending.
 - Optional: Provide a different starting pitch, ask the students to audiate it as *mi* (hearing do-re below) and again sing the Phrygian mode, , ascending and descending.

0:05 Review and compare the scalar patterns of Aeolian mode, Harmonic minor scale, Dorian mode, and Phrygian mode

- Ask students to spell and notate on staff paper the Aeolian mode that has three flats. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Consider the rotational approach
 - What major key has three flats?
 - What would the relative minor of that key be (with the same key signature)?
 - Once the students have notated the C-Aeolian scale (with the key signature), ask them to spell and notate on staff paper the correlated harmonic minor scale.
 - Scaffolding, if necessary:
 - What do we need to change in Aeolian scale to make it harmonic minor?
 - Ask students to spell and notate on staff paper the Dorian mode that has three flats. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Again, consider the rotational approach, recalling the major key that has three flats.
 - What would the relative Dorian of that key be (with the same key signature)?
 - Reminder: Dorian begins on *re*, the second scale degree of the relative major scale.
 - They should notate the F-Dorian scale.
 - Ask students to spell and notate on staff paper the related Phrygian mode that has three flats. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Once more, consider the rotational approach, recalling the major key that has three flats.

- What would the relative Phrygian of that key be (with the same key signature)?
- Reminder: Phrygian begins on what syllable? What scale degree of the relative major scale?
- They should notate the G-Phrygian scale.
- Have students sing the 4 scales they notated on solfege (movable-do, la-minor): C-Aeolian, C harmonic minor, F-Dorian mode, and G-Phrygian
- Have the students analyze and then recite the scalar patterns for each of the four scales (encourage visualizing of the keyboard, as always)
 - W-H-W-W-H-W-W (Aeolian)
 - W-H-W-W-H-A2-H (Harmonic Minor)
 - W-H-W-W-H-A2-H (Harmonic Minor)
 - H-W-W-W-H-W-W (Phrygian)
- Have the students compare the scalar patterns. Solicit points of comparison (reference *Comparing Aeolian, Harmonic Minor, Dorian, and Phrygian* visual)

Comparing Aeolian, Harmonic Minor, Dorian, and Phrygian

	Aeolian	Harmonic Minor	Dorian	Phrygian
Interval between scale degree 1 and 2	Major second (M2)	Major second (M2)	Major second (M2)	Minor second (m2)
Interval between scale degree 1 and 6	Minor sixth (m6) P5 + H	Minor sixth (m6) P5 + H	Major sixth (M6) P5 + W	Minor sixth (m6) P5 + H
Interval between scale degree 1 and 7	Minor seventh (m7) P5 + m3 (H + W)	Major seventh (M7) P5 + M3 (H + A2/m3)	Minor seventh (m7) P5 + m3 (W + H)	Minor seventh (m7) P5 + m3 (H + W)

0:20 Review/Application of Rotational and Transpositional approaches to Phrygian mode

- Reinforcement and reminder
 - Multidimensional thinking: multiple ways of solving problems is always good for double-checking
 - Key signature use in authentic modal compositions is not consistent. Composers frequently use traditional major/minor key signature with constant accidentals in modal composition. It is challenging to know composers' original intentions based only on the key signature. Therefore, key signature should NOT be the only criterion to consider when determining the tonal center/tonality of any composition. Rather, determine the principal scale used in the composition by analyzing pitch relationships.

- Review the two approaches of using key signature in modal compositions
 - Solicit: What are the two primary ways composers use key signatures in modal compositions?
 - *Rotational*: Use of relative major key signature (no need for accidentals)
 - *Transpositional*: Use of parallel major or minor key signature (with accidentals to modify as needed)
 - Phrygian, as a minor mode, would use the parallel *minor* key signature
 - Practice:
 - Provide a specific key signature; have students spell and notate on staff paper the Phrygian mode in that key
 - Example: Key signature with one sharp
 - Scaffolding, if necessary:
 - Determine major key with 1 sharp, spell scale, rotate to Phrygian (*mi* to *mi*)
 - Have the students spell and notate on staff paper the B-Phrygian mode from the transpositional perspective
 - Because Phrygian is a minor mode, we consider the parallel minor of B-minor
 - Guide students to determine what the key signature would be
 - Relative major of B-Minor is D.
 - Key signature for D Major is two sharps.
 - B-Phrygian would then have C-natural accidentals throughout.
 - Conclusion: Being a minor mode, B-Phrygian could have a key signature of one sharp (rotational: relative to G-Major) or two sharps (transpositional: parallel to D-Major and then with all C-natural accidentals)
- 0:25 Examine and sight-sing selected melodies (see Materials section) in Phrygian on solfege (movable-*do*, *la*-minor).
- NOTE: This is continued in the following Aural Skills Lesson, 2-A-1.
- Project the selected song on the screen.
 - Have the students examine the notated melody to verify the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.
- 0:30 Connect Phrygian mode with Phrygian cadence (perhaps encountered earlier in cadence study, or this could be supplemental to cadence study and reinforce the Phrygian concept)
- Cadence is the most effective way of establishing or affirming the tonality – or modality – of an entire work or section. A number of terms have been borrowed from medieval modal theory (authentic, plagal, Phrygian), not always on a strictly logical basis.
 - Related to the imperfect cadence is the Phrygian cadence, which is characterized by a diatonic approach to the final chord from an ‘upper leading note’ (i.e., the second degree of the scale when it lies only a semitone above the tonic).

- Phrygian half cadence: a special name given to the $iv^6 - V$ half cadence in minor. It is distinguished by both the bass line and one other voice descending by half-step.
- Play this cadence on the piano while displaying the notation on the screen

0:33 Closure

- Plays recording of both Bach's and Luther's versions of *Aus tiefer Not schrei ich zu dir* once more; ask students to listen again while noting the Phrygian traits and mood/flavor.
- Encourage students to practice singing the Phrygian mode and notating the mode using both rotational (relative key) and transpositional (parallel key) approaches. Also, to review all other modes learned in the previous classes.

Lesson 2-A-1: Semester 2, Harmony, Aural Skills, Lesson 1

Focus: Singing Phrygian Mode

Instructional Time: 25 minutes

Prerequisite Knowledge and Skills for this class

Lesson 2-W-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing Phrygian mode in notated rhythmic patterns (compound meter) on solfege starting on any given pitch, ascending and descending.
- Improvise brief melodies in Phrygian mode.
- Sight-sing on solfege notated Phrygian melodies (with and without key signatures).
- Aurally identify three minor modes—Phrygian, Dorian, and Aeolian.
- Aurally identify modal melodies in Phrygian.
- Identify the mode of a brief melodic example and notate it from dictation.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythmic patterns in compound meter (for mode scale singing)
- Brief instructor-composed example for dictation
- Students need staff paper and pencil for dictation activity
- *Pange Lingua*, Medieval Latin hymn
- Thomas Tallis: Third Tune (The 3rd Mode Melody) *The God of Love My Shepherd Is*
- *O Sacred Head, Now Wounded*, Christian Passion hymn
- Martin Luther's Phrygian hymn (chorale) *Aus tiefer Not schrei ich zu dir*
- Chopin's Mazurka in C# minor, Op. 41, No. 1

Procedure

0:00 Project the one-beat rhythmic patterns in compound meter on the screen. Select two and have the students sing Phrygian scales, ascending and descending, using those patterns. For example, using this pattern:



Sing: re mi mi mi fa so so so

Mix and match patterns.

- 0:02 Students improvise four-measure (6/8) diatonic melodies in Phrygian on solfege (movable-do, la-minor) using compound meter patterns. The rhythm patterns can be projected on the screen again, if needed. Students should start and end melodies on the tonic pitch/syllable. This can be “chained”: one student immediately follows the next (staying in the same mode).
Assessment Suggestion: This and other activities can now begin to count for participation points.
Note: If time allows, students may also improvise in other modes.
- 0:07 Sight-sing selected Phrygian melodies (see Materials section) on solfege (movable-*do*, *la*-minor). These now include key signatures.
- Pedagogical Note: "O Sacred Head, Now Wounded" is a Christian Passion hymn based on a Latin text written during the Middle Ages. The music for the German and English versions of the hymn is by Hans Leo Hassler, written around 1600—at the very threshold of the Baroque period but with modal roots. Johann Sebastian Bach arranged the melody and used five stanzas of the hymn in four different settings in his St. Matthew Passion. It is particularly important to note that Bach harmonized the melody in ways that place it in the major/minor context of the Common Practice Period.
- 0:12 Students differentiate performed minor modes as either Phrygian, Dorian, or Aeolian. Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.
- 0:15 Students identify performed melodies as Phrygian or other mode. Play or instructor/students perform the examples in the Materials section and have students identify the mode.
- 0:20 Instructor performs a brief self-composed example for dictation. Students identify the mode and then notate the melody.
- 0:25 Closure
Encourage students to practice improvising in various modes as independent practice to reinforce.

Transition to other aural skills content for the remainder of the class time.

Lesson 2-W-2: Semester 2, Harmony, Written Theory, Lesson 2

Focus: Review/Reinforce All Minor Modes; Advanced Practice and Application

Instructional Time: 40 minutes

Prerequisite Knowledge and Skills

Lesson 2-W-1, 2-A-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Demonstrate an understanding of the differentiation among the four minor scalar patterns: Phrygian mode, Dorian mode, Aeolian mode, and harmonic minor scale.
- Notate three minor modes (Phrygian, Dorian, and Aeolian) on the staff using both key signature approaches: rotational—modal key signature system; transpositional—traditional major/minor key signature system with accidentals.
- Identify Phrygian, Dorian, and Aeolian melodies (more advanced) that apply both key signature approaches—rotational and transpositional.
- Notate and label with Roman numerals diatonic triads in Aeolian, Dorian, and Phrygian modes and differentiate them from functional harmony (diatonic chords in major/harmonic minor).
- Demonstrate an understanding and application of information learned about modes in previous lessons by differentiating and identifying melodies written in Ionian, Aeolian, Dorian, Mixolydian, and Phrygian.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - *Comparing Aeolian, Harmonic Minor, Dorian, and Phrygian* visual (see Lesson 2-W-1)
 - *Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Aeolian, Dorian, and Phrygian Scales* visual (see below)
- Students need staff paper and pencil
- *O Sacred Head, Now Wounded*, Christian Passion hymn
- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)
- Vaughan Williams: *Claribel*, for voice and piano (Aeolian)
- Ralph Greaves's arrangement of *Fantasia on "Greensleeves"* from Vaughan Williams's opera *Sir John in Love*.
- *I Love My Love*, Arranged by G. T. Holst Cornish folksong (Dorian)
- Debussy: String Quartet in G minor, Op.10, 1st movement, I. Animé et très décidé (Phrygian)
- Nagel: *The Well-Tempered Mode, Songs from the Phrygian*, No. 2, Powerful, but with anguish

Procedures

0:00 Practice identifying modes aurally

- Play recording of Holst's *I Love My Love* (just first two verses; approximately 1'30)
 - Ask the students to identify the mode of this song (Dorian)
 - If needed, play the melody on piano again
- Play hymn melody *O Sacred Head, Now Wounded* on piano
- Students hum the melody and identify the mode
 - Ask the students to identify the mode of this song (Phrygian)
 - If needed, play the melody on piano again

0:04 Review all four minor modes

- Have students name and sing all four minor modes (Dorian, Phrygian, Aeolian, and Locrian) on solfege using movable-do, la-minor
- Have students sing Dorian, Phrygian, Aeolian, and harmonic minor scales on the neutral syllable "pa" (audiating solfege syllables).
- Have students compare the scalar patterns of Aeolian, Harmonic Minor, Dorian, and Phrygian. What intervals are different?
 - Reference and/or display *Comparing Aeolian, Harmonic Minor, Dorian, and Phrygian* visual from Lesson 2-W-1 if needed.
- Ask students to notate on staff paper the Aeolian mode, Harmonic Minor scale, Dorian mode, and Phrygian mode using both key signature approaches: rotational—modal key signature system and transpositional—traditional major/minor key signature system with accidentals.
 - Rotational / Modal Key Signature: Provide a key signature and have them notate each of the scales using the rotational approach. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Guide the students to determine the relative minor of the given key signature and notate the Aeolian mode.
 - What needs to change in Aeolian scale to make it harmonic minor?
 - Recalling the relative major key, what would the relative Dorian of that key be (with the same key signature)? Dorian begins on what syllable?
 - Recalling the relative major key, what would the relative Phrygian of that key be (with the same key signature)? Phrygian begins on what syllable?
 - Transpositional—traditional major/minor key signature system with accidentals. Provide a starting pitch (tonic) and have them notate each of the scales using the transpositional approach. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Guide the students to determine the relative major of the given tonic pitch (because it is the tonic given for the desired Aeolian

mode, Aeolian being “natural minor” in the traditional major/minor system). They can then use that key signature to notate the Aeolian mode (natural minor scale).

- As in either approach: What needs to change in Aeolian scale to make it harmonic minor?
- Dorian: Because Dorian is a minor mode, the transpositional perspective would apply the same key signature as its parallel minor. What changes need to be made to the Aeolian mode to make it Dorian?
- Phrygian: Because Phrygian is a minor mode, the transpositional perspective would apply the same key signature as its parallel minor. What changes need to be made to the Aeolian mode to make it Phrygian?
- Close this section of the lesson by having the students sing these four minor modes once more on solfege and on the neutral syllable “pa.”

0:15 Examine and sight-sing selected melodies (see Materials section) in Phrygian, Dorian, and Aeolian on solfege (movable-*do*, *la*-minor).

NOTE: This is continued in the following Aural Skills Lesson, 2-A-2.

- Project the selected song on the screen.
- Have the students examine the notated melody to verify the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

0:22 Modal Harmonization

- Review and define the diatonic triads of the major scale
 - Have students notate on staff paper the diatonic triads of the major scale and label each with the appropriate Roman numeral
 - Have students sing each of the triads
- Review and define the diatonic triads of the minor scale
 - Have students notate on staff paper the diatonic triads of the minor scale and label each with the appropriate Roman numeral
 - Have students sing each of the triads (arpeggiation on solfege is best)
- Briefly review the three functions of common-practice functional harmony: predominant, dominant, and tonic
- Introduce and emphasize the concept that the triads of the diatonic modes do NOT have harmonic functions.
 - Have students notate on staff paper the diatonic triads of the Aeolian mode and label each with the appropriate Roman numeral
 - Have students notate on staff paper the diatonic triads of the Dorian mode and label each with the appropriate Roman numeral
 - Have students notate on staff paper the diatonic triads of the Phrygian mode and label each with the appropriate Roman numeral

- Project on screen and discuss the summary table *Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Aeolian, Dorian, and Phrygian Scales*.

Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Aeolian, Dorian, and Phrygian Scales

	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediant	Leading tone Subtonic
Major scale	I	ii	iii	IV	V	vi	vii ^o
Harmonic minor scale	i	ii ^o	III ⁺	iv	V	VI	vii ^o
Aeolian	i	ii ^o	III	iv	v	VI	VII
Dorian	i	ii	III	IV	v	vi ^o	VII
Phrygian	i	II	III	iv	v ^o	VI	vii

- Guide students to discover aurally why the diatonic triads of modes do not have harmonic functions as they do in major and minor
 - Play on the piano the following harmonic progressions in major and minor
 - In major: I – IV – V – I
 - In harmonic minor: I – iv – V – I
 - Play on the piano the corresponding harmonic progressions in Dorian and Phrygian
 - Dorian: i – IV⁶₄ – v⁶ – i
 - Phrygian: i – iv⁶₄ – v^{o6} – i
 - Lead discussion of the differences in perception and resulting “function” of the progressions in Dorian and Phrygian. Encourage students to consider the possible chord progressions (diatonic triads only) that could be used in Dorian and Phrygian modes to emphasize the modal flavor of the associated melodies.
 - Guidance: Identify the unique triads in each mode as compared to major and minor (e.g., IV and VII in Dorian; II and vii in Phrygian)

0:38 Summary and Closure

Allow for some Question & Answer time with the students regarding any/all information related to modes.

Lesson 2-A-2: Semester 2, Harmony, Aural Skills, Lesson 2

Focus: Identify, Singing, and Improvising—Phrygian, Dorian, and Aeolian

Instructional Time: 20 minutes

Prerequisite Knowledge and Skills for this class

Lesson 2-W-2

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing on solfege Phrygian, Dorian, and Aeolian modes in notated rhythmic patterns (mix of simple and compound meters) starting on any given pitch, ascending and descending.
- Improvise and compose brief melodies in Aeolian, Dorian, and Phrygian modes.
- Sight-sing on solfege notated Phrygian, Dorian, and Aeolian melodies (with and without key signatures) after identification.
- Aurally identify three minor modes (Phrygian, Dorian, and Aeolian) and two major modes (Ionian and Mixolydian).
- Aurally identify and differentiate modal melodies in Phrygian, Dorian, and Aeolian.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythm patterns in simple and compound meter (for mode scale singing)
- Brief instructor-composed example for dictation
- Students need staff paper and pencil for dictation activity
- Debussy: String Quartet in G minor, Op.10, 1st movement, I. Animé et très décidé (Phrygian)
- Jody Nagel: *The Well-Tempered Mode, Songs from the Phrygian*, No. 2, Powerful, but with anguish. (Phrygian)
- Jody Nagel: *The Well-Tempered Mode, Songs from the Phrygian*, No. 4, Hopeful. (Phrygian)
- Jody Nagel: *The Well-Tempered Mode, Songs from the Phrygian*, No. 9, Chorale
- Nagel: WTM, *Songs from the Dorian*, No. 1, Breeze (Dorian)
- Nagel: WTM, *Songs from the Dorian*, No. 3, Moderato (Dorian)
- *I Love My Love*, Arranged by G. T. Holst Cornish folksong (Dorian)
- Vaughan Williams: *Claribel*, for voice and piano (Aeolian)

Procedures

- 0:00 Project the one-beat rhythm patterns in compound and simple meter on the screen. Select two and have the students sing Phrygian, Dorian, and Aeolian modes on solfege, ascending and descending, using those patterns.
Mix and match modes and rhythm patterns.
- 0:02 Students improvise four-measure diatonic melodies in Aeolian, Dorian, and Phrygian on solfege (movable-do, la-minor) using simple or compound meter patterns. The rhythm

patterns can be projected on the screen again, if needed. Students should start and end melodies on the tonic pitch/syllable. This can be “chained”: one student immediately follows the next (staying in the same mode).

Assessment Suggestion: This and other activities can count for participation points.

- 0:07 Sight-sing selected Phrygian, Dorian, and Aeolian melodies (see Materials section) on solfege (movable-*do*, *la*-minor). These now include key signatures. Students should first identify and name the mode in the example.
- 0:12 Students differentiate performed minor mode scales (Phrygian, Dorian, and Aeolian) and two major mode scales (Ionian and Mixolydian). Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.
- 0:15 Students identify performed melodies as Phrygian, Dorian, or Aeolian. Play or instructor/students perform the examples in the Materials section and have students identify the mode.
- 0:20 Closure
Encourage students to practice improvising in various modes as independent practice to reinforce.
Possible homework assignment: Students compose four-measure diatonic melodies in Aeolian, Dorian, and/or Phrygian using simple or compound meter patterns.

Transition to other aural skills content for the remainder of the class time.

Lesson 3-W-1: Semester 3, Chromaticism, Written Theory, Lesson 1

Focus: Lydian Mode & Review

Instructional time for this lesson module: 45 minutes

Prerequisite Knowledge and Skills for this class

- Master all pre-studied theory knowledge (concepts and application) under fundamentals and diatonic harmony that students have learned in the first two-semester-theory core
- 2-W-2 and all previous mode studies
- Sequencing suggestions:
 - Teach this lesson after or during the study of “mode mixture” (borrowed chords, Picardy third, Neapolitan sixth chord)
 - In the weeks leading up to this first lesson on modes in Semester 3, students should sing all the modes on solfege and sight-sing modal repertoire in Aural Skills class to review the concept and sounds of the diatonic modes.

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Differentiate the scalar pattern of Lydian mode from the scalar patterns of other major modes (Ionian and Mixolydian).
- Sing Lydian mode on solfege starting on any given pitch.
- Notate Lydian mode on the staff using rotational and transpositional approaches.
- Identify Lydian melodies that were written using both key signature approaches: rotational—modal key signature system; transpositional—traditional major/minor key signature system with accidentals.
- Sing notated Lydian melodies on solfege after identification.
- Notate and label with Roman numerals diatonic triads in Lydian and Mixolydian modes and differentiate them from functional harmony (diatonic chords in major/harmonic minor).

Materials

- Piano/keyboard, board, marker, eraser
- Copies of Worksheet for Lesson 3-W-1 for each student (this worksheet is included after this lesson)
- Instructor created visuals to project on screen
 - *Comparing Major/Ionian, Mixolydian, and Lydian* visual (see below)
 - *Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Lydian, and Mixolydian Scales* visual (see below)
- Students need staff paper and pencil
- Bartók: *Mikrokosmos I*, No. 24, Pastorale
- Bartók: *Mikrokosmos II*, No. 37, In Lydian Mode
- Chopin *Mazurka*, Op. 68, No.3
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 1, Infant Joy

- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 6, The Shepherd.

Procedures

0:00 Practice identifying modes aurally

- Play recording of Chopin Mazurka Op. 68, no. 3. Without displaying the score:
 - Ask the students to identify the form (ABA) and characteristics of this piece
- Project the score on the screen, guide the students to focus on the B section (mm. 33-44), and play the melody slowly on the piano. Ask the students to identify the mode of this song (Lydian).
 - Scaffolding:
 - Find/sing tonic
 - Find/sing dominant
 - Hum melody with raised 4th
 - If needed, play the melody on the piano
 - Consider connecting with the melody of the song “Maria” from *West Side Story*

0:05 Review and re-introduce Lydian mode

- Review previously learned knowledge about seven diatonic modes
 - Ask students to name the seven modes
 - Have students sing each of the modes on solfege, ascending and descending
 - Question: Which of the modes have we NOT explored specifically yet? (Lydian and Locrian)
- Today’s focus is on the Lydian mode
 - Lydian mode is the rotation of major scale from *fa* to *fa*
 - Have students sing Lydian mode again
- Question: Is Lydian a major mode or a minor mode? (Major) Why?
 - Review the categorization of diatonic modes
 - Question: What determines these two classifications? (interval between scale degrees 1 and 3)
 - Major modes (3): Ionian/Major, Lydian, Mixolydian
 - Minor modes (4): Dorian, Phrygian, Aeolian, Locrian

0:10 Review and compare the scalar patterns of Lydian, Mixolydian, and Ionian modes

- Ask students to spell and notate on staff paper the Mixolydian mode that has three sharps. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Consider the rotational approach
 - What major key has three sharps?
 - What is the relative Mixolydian of that key (with the same key signature)?
 - Reminder: Mixolydian begins on *so*, the fifth scale degree of the relative major scale.

- They should notate the E-Mixolydian scale.
- Ask students to spell and notate on staff paper the Lydian mode that has three sharps. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Again, consider the rotational approach. As just established, the major key with three sharps is A.
 - What is the relative Lydian of that key (with the same key signature)?
 - Reminder: Lydian begins on *fa*, the fourth scale degree of the relative major scale.
 - They should notate the D-Lydian scale.
- Have students sing major scale, Mixolydian mode, and Lydian mode on solfege (movable-do, la-minor)
- Have the students analyze and then recite the scalar patterns for each of the three major scales/modes (encourage visualizing of the keyboard, as always)
 - W-W-W-H-W-W-H (Lydian)
 - W-W-H-W-W-H-W (Mixolydian)
 - W-W-H-W-W-W-H (Ionian/Major scale)
- Have the students compare the scalar patterns. Solicit points of comparison (reference *Comparing Major/Ionian, Mixolydian, and Lydian* visual)

Comparing Major/Ionian, Mixolydian, and Lydian

	Major Scale/Ionian	Mixolydian	Lydian
Interval between scale degree 1 and 4	Perfect Fourth P4 M3 + H	Perfect Fourth P4 M3 + H	A4 (tritone) M3 + W
Interval between scale degree 1 and 7	Major Seventh M7 M6 + W	Minor Seventh m7 M6 + H	Major Seventh M7 M6 + W

0:15+ Review/Application of Rotational and Transpositional approaches to Lydian mode

- Review the two approaches of using key signature in modal compositions
 - Solicit: What are the two primary ways composers use key signatures in modal compositions?
 - *Rotational*: Use of relative major key signature (no need for accidentals)
 - *Transpositional*: Use of parallel major or minor key signature (with accidentals to modify as needed)
 - Lydian, as a major mode, will; use the parallel *major* key signature
- Practice:
 - Provide a specific key signature; have students spell and notate on staff paper the Lydian mode in that key
 - Example: Key signature with one flat
 - Scaffolding, if necessary:
 - Determine major key with 1 flat, spell scale, rotate to Lydian (*fa* to *fā*)

- Have the students spell and notate on staff paper the G-Lydian mode from the transpositional perspective
 - Because Lydian is a major mode, we consider the parallel major of G-Major
 - Guide students to determine what the key signature would be
 - Key signature for G Major is one sharp.
 - G-Lydian would then have C-sharp accidentals throughout.
- Conclusion: Being a major mode, G-Lydian could have a key signature of one flat (rotational: relative to F-Major) or two sharps (transpositional: parallel to G-Major and then with all C-sharp accidentals)

0:20+ Examine and sight-sing selected melodies (see Materials section) in Lydian on solfege (movable-*do*, *la*-minor).

NOTE: This is continued in the following Aural Skills Lesson, 3-A-1.

- Project the selected song on the screen.
- Have the students examine the notated melody to verify the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

00:30 Modal Harmonization: Lydian and Mixolydian

- Review and define the diatonic triads of the major and Harmonic minor scales. Have the students complete the first two rows of the table in *Worksheet for Lesson 3-W-1*. Circulate to monitor individual student progress.
 - Note: This was introduced in detail in Lesson 2-W-2, so students should be able to quickly identify the appropriate Roman numeral for the diatonic triad associated with each scale degree of the major scale.
- Have students sing each of the triads (arpeggiation on solfege is best)
- Solicit the three functions of common-practice functional harmony (predominant, dominant, and tonic)
- Remind students that the triads of the diatonic modes do NOT have harmonic functions.
 - Have students notate on the worksheet staff the diatonic triads of the Lydian mode and label each with the appropriate Roman numeral.
 - Have students notate on the worksheet staff the diatonic triads of the Mixolydian mode and label each with the appropriate Roman numeral.
 - Have the students complete rows 3 and 4 of the table in *Worksheet for Lesson 3-W-1*.
 - Project on screen and discuss the summary table *Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Lydian, and Mixolydian Scales*

Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Lydian, and Mixolydian Scales

	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediant	Leading tone Subtonic
Major scale	I	ii	iii	IV	V	vi	vii ^o
Harmonic minor scale	i	ii ^o	III ⁺	iv	V	VI	vii ^o
Lydian	I	II	iii	iv^o	V	vi	vii
Mixolydian	I	ii	iii ^o	IV	v	vi	VII

- Guide students to discover aurally why the diatonic triads of these two modes do not have harmonic functions as they do in major and minor
 - Play on the piano the following harmonic progressions in major and minor
 - In major: I – IV – V – I
 - In harmonic minor: I – iv – V – I
 - Play on the piano the corresponding harmonic progressions in Lydian and Mixolydian
 - Lydian: I – iv^o – V – I
 - Mixolydian: i – IV – v – I
 - Lead discussion of the differences in perception and resulting “function” of the progressions in Lydian and Mixolydian. Encourage students to consider the possible chord progressions (diatonic triads only) that could be used in Lydian and Mixolydian modes to emphasize the modal flavor of the associated melodies.
 - Guidance: Identify the unique triads in each mode as compared to major and minor (e.g., II and iv^o in Lydian; VII in Mixolydian)

0:45 Closure

- Play the recording of the B section of Chopin Mazurka Op. 68, no. 3 once more; ask students to listen again while noting the Lydian traits and mood/flavor.
- Encourage students to:
 - Practice singing the Lydian mode and notating the mode using both rotational (relative key) and transpositional (parallel key) approaches. Also, to review all other modes learned in the previous classes.
 - Play modal scales on keyboard starting at any given pitch
 - Perform advanced modal melodies on a chosen instrument

Worksheet for Lesson 3-W-1

Modal Harmonization: Lydian and Mixolydian

Diatonic Triads in Major, Harmonic Minor, Lydian, and Mixolydian Scales

Complete the table by filling in the proper Roman numerals for each mode. Be sure to attend to triad quality (major, minor, diminished, augmented) via uppercase or lowercase numerals and appropriate superscripts (^o +).

Diatonic Triads with Roman Numeral Labels for Major, Harmonic Minor, Lydian, and Mixolydian Scales

	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediant	Leading tone Subtonic
Major scale							
Harmonic Minor scale							
Lydian							
Mixolydian							

Notate on the staff below the diatonic triads of the Lydian mode and label each with the appropriate Roman numeral.

Notate on the staff below the diatonic triads of the Mixolydian mode and label each with the appropriate Roman numeral.

Lesson 3-A-1: Semester 3, Chromaticism, Aural Skills, Lesson 1

Focus: Identify, Singing, and Improvising—Lydian

Instructional Time: 30 minutes

Prerequisite Knowledge and Skills for this class

Lesson 3-W-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing on solfege Lydian mode in notated rhythmic patterns (simple meter) starting on any given pitch, ascending and descending.
- Improvise brief melodies in Lydian mode.
- Sing by rote simple Lydian folk melodies.
- Sight sing on solfege notated Lydian melodies (with and without key signatures) after identification.
- Aurally identify three major modes—Lydian, Mixolydian, and Ionian.
- Aurally identify modal melodies in Lydian.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythm patterns in simple and compound meters
 - Brief instructor-composed examples for sight-singing in Lydian
- Czech Folk Songs by Anna Hradsky
- *The Ground Hog*, Lonesome Tunes: Folk Songs from The Kentucky Mountains, by Loraine Wyman & Howard Brockway
- Bartók: *Mikrokosmos I*, No. 24, Pastorale
- Bartók: *Mikrokosmos II*, No. 37, In Lydian Mode
- Chopin *Mazurka*, Op. 68, No.3 Middle section (mm. 33-44)
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 1, Infant Joy
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 6, The Shepherd.

Procedures

- 0:00 Review/Reinforcement: Sing and sign all seven diatonic modes on solfege starting on any given pitch, ascending and descending
- 0:03 Project the one-beat rhythm patterns in simple meter on the screen. Select two and have the students sing the Lydian mode on solfege, ascending and descending, using those patterns.
Mix and match rhythm patterns.

- 0:05 Students improvise four-measure (4/4) diatonic melodies in Lydian on solfege using simple or compound meter patterns. The rhythm patterns can be projected on the screen again, if needed. Students should start and end melodies on the tonic pitch/syllable. This can be “chained”: one student immediately follows the next (staying in the same mode). Assessment Suggestion: This and other activities can count for participation points.
- 0:10 Model *The Ground Hog* or other Lydian folk song. (Optional: A week earlier, assign a student or student group to learn and prepare to rote teach the song to the class.) Solicit the mode of the melody. Students need not be certain to move ahead with the next step.
Teach *The Ground Hog* by rote (echo-teach each phrase).
Help students confirm that the melody is Lydian and why.
- 0:13 Sight-sing brief instructor-composed Lydian melody on solfege (movable-*do*, *la*-minor).
- 0:15 Sight-sing selected Lydian melodies (see Materials section) on solfege (movable-*do*, *la*-minor). Students should first identify and name the mode in the example.
- 0:18 Students differentiate among performed major mode scales (Lydian, Mixolydian, and Ionian). Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.
- 0:21 Students identify performed melodies as Phrygian, Dorian, or Aeolian. Play or instructor/students perform the examples in the Materials section and have students identify the mode.
- 0:25 Closure
Encourage students to continue singing the learned melody as independent practice to reinforce the sound of the Lydian mode. Challenge them to sing it on solfege. (Post the notated melody on the course LMP/website for student access.)

Transition to other aural skills content for the remainder of the class time.

Lesson 3-W-2: Semester 3, Chromaticism, Written Theory, Lesson 2

Focus: Review/Reinforce All Modes; Advanced Practice and Application

Instructional time for this lesson module: 40 minutes

Prerequisite Knowledge and Skills for this class

Lesson 3-W-1, 3-A-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Demonstrate an understanding of the differentiation among the three major scalar patterns: Lydian mode, Mixolydian mode, and Ionian mode (major scale).
- Notate two major modes (Lydian and Mixolydian) on the staff using both key signature approaches: rotational—modal key signature system; transpositional—traditional major/minor key signature system with accidentals.
- Identify Lydian and Mixolydian melodies (more advanced) that apply both key signature approaches—rotational and transpositional.
- Demonstrate an understanding and application of information learned about modes in previous lessons by differentiating and identifying melodies written in Ionian, Aeolian, Dorian, Mixolydian, Phrygian, and Lydian.
- Demonstrate an understanding of diatonic triads in Aeolian, Dorian, Phrygian, Lydian, and Mixolydian modes, and identify characteristic chords in each mode.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - *Comparing Major/Ionian, Mixolydian, and Lydian* visual (see Lesson 3-W-1)
 - *Diatonic Triads with Roman Numeral Labels for all Modes (except Locrian)* visual (see below)
- Students need staff paper and pencil
- Bartók: *Mikrokosmos I*, No. 24, Pastorale (Lydian)
- Bartók: *Mikrokosmos II*, No. 37, In Lydian Mode
- Francis Poulenc: *Valse* for solo piano (1919) (Lydian)
- Puccini: *Tosca*, Act III “Io de' sospiri” (Or “Un Pastore”)
- Vaughan Williams: *6 Studies in English Folksong* for cello and piano, No. 4. (Mixolydian)
- *Over the Sea to Skye*, Arranged by Douglas E. Wagner (Mixolydian)
- Vaughan Williams: *Blackwore by the Stour* for voice and piano (Mixolydian)
- Nagel: *The Well-Tempered Mode, Songs from the Mixolydian*, No. 6, With Kindness

If time allows, instructor may consider the following as well

- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)
- Nagel: *The Well-Tempered Mode, Songs from the Aeolian*, No. 1. Hymn to the Death of Balder (Aeolian)
- Fauré: 2 Songs, Op.83, No. 1, Prison (Dorian)

- Vaughan Williams: *Ten Blake Songs*, No. 9, *The Divine Image* (Dorian)
- Vaughan Williams: *Along the Field*, No. 1. *We'll to the Woods No More* (Dorian)
- Thomas Tallis: *Third Tune (The 3rd Mode Melody) The God of Love My Shepherd Is* (Phrygian)
- Carlos Chávez, *Ten Preludes for piano*, No. 1 (Phrygian)
- Nagel: *The Well-Tempered Mode, Songs from the Phrygian*, No. 9, *Chorale*

Procedures

0:00 Practice identifying modes aurally

- Play recording of Francis Poulenc: *Valse* for solo piano (2 min)
 - Ask the students to identify the mode (modal flavor) of the first theme (Lydian)
- Play recording of Vaughan Williams: *Blackmwore by the Stour* (2 min)
 - Ask the students to identify the mode (Mixolydian)

0:05 Review major modes

- Have students name and sing the three major modes (Major/Ionian, Lydian, and Mixolydian) on solfege using movable-do, la-minor
- Have students sing Major/Ionian, Lydian, and Mixolydian on the neutral syllable “pa” (audiating solfege syllables).
- Have students compare the scalar patterns of Major/Ionian, Lydian, and Mixolydian. What intervals are different?
 - Reference and/or display *Comparing Major/Ionian, Lydian, and Mixolydian* visual (see Lesson 3-W-1)
- Ask students to notate on staff paper the Lydian and Mixolydian modes using both key signature approaches: rotational—modal key signature system and transpositional—traditional major/minor key signature system with accidentals.
 - Rotational / Modal Key Signature: Provide a key signature and have the students notate each of the scales using the rotational approach. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Guide the students to determine the relative major of the given key signature.
 - What would the relative Lydian of that key be (with the same key signature)? Lydian begins on what syllable?
 - What would the relative Mixolydian of that key be (with the same key signature)? Mixolydian begins on what syllable?
 - Transpositional—traditional major/minor key signature system with accidentals. Provide a starting pitch (tonic) and have them notate each of the scales using the transpositional approach. Circulate to monitor individual student progress.
 - Scaffolding, if necessary:
 - Lydian: Because Lydian is a major mode, the transpositional perspective would apply the same key signature as its parallel

major. What changes need to be made to the major scale to make it Lydian? (raise the 4th scale degree). Add this/these accidentals.

- Mixolydian: Because Mixolydian is a major mode, the transpositional perspective would apply the same key signature as its parallel major. What changes need to be made to the major scale to make it Mixolydian? (lower the 7th scale degree). Add this/these accidentals.
- Close this section of the lesson by having the students sing these three major modes once more on solfege and on the neutral syllable “pa.”

0:15 Examine and sight-sing selected melodies (see Materials section) in Lydian and Mixolydian on solfege (movable-*do*, *la*-minor).

NOTE: This is continued in the following Aural Skills Lesson, 3-A-2.

- Project the selected song on the screen.
- Have the students examine the notated melody to verify the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

0:23 Examine and sight-sing selected melodies (see Materials section) in Aeolian, Dorian, and Phrygian on solfege (movable-*do*, *la*-minor).

NOTE: This is continued in the following Aural Skills Lesson, 3-A-2.

- Project the selected song on the screen.
- Have the students examine the notated melody to verify the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

00:30 Modal Harmonization: All Modes

- Project on screen the summary table *Diatonic Triads with Roman Numeral Labels for all Modes*.
 - Instructional Option, if time allows during this lesson or for a unit review and/or assessment: Create a worksheet with this table blank and have the students fill in the cells.

Diatonic Triads with Roman Numeral Labels for all Modes (except Locrian)

	Tonic	Super-tonic	Mediant	Sub-dominant	Dominant	Sub-mediante	Leading tone Subtonic
Major scale	I	ii	iii	IV	V	vi	vii ^o
Harmonic minor scale	i	ii ^o	III ⁺	iv	V	VI	vii ^o
Aeolian	i	ii ^o	III	iv	v	VI	VII
Dorian	i	ii	III	IV	v	vi ^o	VII
Phrygian	i	II	III	iv	v^o	VI	vii
Lydian	I	II	iii	iv^o	V	vi	vii
Mixolydian	I	ii	iii ^o	IV	v	vi	VII

- Discuss the table with the students. Guide them to:
 - Compare the diatonic triads in each minor mode with those in harmonic minor scale.
 - Compare the diatonic triads in each major mode with those in major scale
 - Identify and circle the unique triads in each mode (e.g., III and VII chords in Aeolian; IV and VII chords in Dorian, etc.).
- Help reinforce the modal flavor these characteristic chords add to each mode by playing the following chord progressions on the piano. Invite student comment.
 - Aeolian: I – VII – VI – VII – I
 - Dorian: i – IV – i i – VII – i
 - Phrygian: i – vii – i i – II – i
 - Lydian: I – II – I
 - Mixolydian: I – VII – I

0:35 Modal Influences: Borrowed Chords

- Lead a brief discussion connecting the students' rich knowledge of modes with the practice of Borrowed Chords introduced in other theoretical contexts (assuming this has been introduced by this point in the music theory curriculum).
 - Some commonly used borrowed chords have their roots in the modes; this is, in fact, from where they are borrowed.
 - The Picardy Third: Perhaps the most ubiquitous example, borrowing the tonic chord from the parallel Major at a cadential point in minor.
 - The Flat-Seventh Chord: Borrowed from the Mixolydian (VII chord)
 - Neapolitan Chord (or Neapolitan 6): This major triad built on the flat-second scale degree (usually in a minor key) is borrowed from Phrygian. While some debate exists among theorists as to whether this is more properly labeled a borrowed chord or an altered chord, the use of this chord goes back at least as far as the 17th century, during the very earliest part of the Common Practice Period. This is to be expected since the modes were still relatively fresh in composers' ears at that time. It is significant to note that Schenker actually refers to this chord as Phrygian II (Jonas, 1982), certainly strongly reinforcing his position that it is borrowed directly from the Phrygian mode.

0:40 Closure

- Encourage students to continue singing and notating all the modes, playing modal scales on the keyboard, and performing advanced modal melodies on a chosen instrument

Lesson 3-A-2: Semester 3, Chromaticism, Aural Skills, Lesson 2

Focus: Identifying, Singing, and Improvising—Lydian and Mixolydian

Instructional Time: 25 minutes

Prerequisite Knowledge and Skills for this class

Lesson 3-W-2

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing on solfege Lydian and Mixolydian modes in notated rhythmic patterns (mix of simple and compound meters) starting on any given pitch, ascending and descending.
- Improvise and compose brief melodies in Lydian and Mixolydian modes.
- Sing on solfege notated Lydian and Mixolydian melodies (with and without key signatures) after identification.
- Aurally identify three major modes (Lydian, Mixolydian, and Ionian) and three minor modes (Phrygian, Dorian, and Aeolian).
- Aurally identify and differentiate among modal melodies in Lydian, Mixolydian, and Ionian.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - Variety of one-beat rhythm patterns in simple and compound meters
 - Brief instructor-composed examples for sight-singing in Lydian and Mixolydian
- Bartók: *Mikrokosmos I*, No. 24, Pastorale (Lydian)
- Bartók: *Mikrokosmos II*, No. 37, In Lydian Mode
- Francis Poulenc: *Valse* for solo piano (1919) (Lydian)
- Puccini: *Tosca*, Act III “Io de' sospiri” (Or “Un Pastore”)
- Vaughan Williams: *6 Studies in English Folksong* for cello and piano, No. 4. (Mixolydian)
- *Over the Sea to Skye*, Arranged by Douglas E. Wagner (Mixolydian)
- Vaughan Williams: *Blackmwore by the Stour* for voice and piano (Mixolydian)
- Nagel: *The Well-Tempered Mode, Songs from the Mixolydian*, No. 6, With Kindness

Procedures

0:00 Project the one-beat rhythm patterns in compound and simple meter on the screen. Select two and have the students sing Lydian and Mixolydian modes on solfege, ascending and descending, using those patterns.

Mix and match modes and rhythm patterns.

0:02 Students improvise four-measure diatonic melodies in Lydian and Mixolydian modes on solfege (movable-do, la-minor) using simple or compound meter patterns. The rhythm patterns can be projected on the screen again, if needed. Students should start and end melodies on the tonic pitch/syllable. This can be “chained”: one student immediately follows the next (staying in the same mode).

Assessment Suggestion: This and other activities can count for participation points.

- 0:07 Sight-sing brief instructor-composed Lydian and Mixolydian melodies on solfege (movable-*do*, *la*-minor).
- 0:10 Students sight-sing Lydian and Mixolydian melodies (see Materials section) on solfege (movable-*do*, *la*-minor). Students should first identify and name the mode in the example.
- 0:17 Students differentiate among performed major mode scales (Lydian, Mixolydian, and Ionian) and minor mode scales (Phrygian, Dorian, and Aeolian). Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.
- 0:20 Students identify performed melodies as Lydian, Mixolydian, or Ionian. Play or instructor/students perform the examples in the Materials section and have students identify the mode.
- 0:25 Closure
Encourage students to practice improvising in various modes as independent practice to reinforce.
Possible homework assignment: Students compose four-measure diatonic melodies in Lydian and Mixolydian modes using simple or compound meter patterns.

Transition to other aural skills content for the remainder of the class time.

Lesson 4-W-1: Semester 4, Post-tonal Written Theory, Lesson 1

Focus: Analysis and Harmonization of Contemporary Modal Compositions

Instructional time for this lesson module: 40 minutes

Prerequisite Knowledge and Skills for this class

- Complete first-three-semester-theory core studies including both written theory courses and aural skills classes and be competent with all requirements regarding to music theory
- 3-W-2 and all previous mode studies
- Suggestions from my own perspective
 - When to teach this lesson: in the beginning of the post-tonal study, under subject such as *scale materials in the twentieth century* or *scales, modes, sets*
 - Preparation before this lesson: a couple weeks before taking this scheduled lesson, students should sing seven diatonic modal scales and sight-sing modal repertoire in Aural Skills class to review the concept and sounds of the diatonic modes.

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Name and sing by rote representative folk songs in each mode.
- Demonstrate a firm understanding of previously learned knowledge and skills related to diatonic modes.
- Identify characteristic chords and/or harmonic progressions used in each mode.
- Analyze contemporary modal repertoire, identifying special chords and/or chord progressions used in the compositions.
- Identify the procedural sequence for harmonizing modal melodies and begin applying this sequence to harmonize assigned or self-composed melodies.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - *Comparing Major/Ionian, Mixolydian, and Lydian* visual (see Lesson 3-W-1)
 - *Diatonic Triads with Roman Numeral Labels for all Modes (except Locrian)* visual (see below)
- Students need staff paper and pencil

Folk melodies:

- *Greensleeves, What Child is This?* (D)
- *God Rest You Merry, Gentlemen* English traditional Christmas carol (A);
- *Lovely Joan* (English Folk Song) (D)
- *O Sacred Head, Now Wounded*, Christian Passion hymn (P)
- *Old Joe Clark*, Folk Song (M)
- *Rise up, Shepherd, and Follow*, African American spiritual (M)
- *The Ground Hog*, Lonesome Tunes: Folk Songs from The Kentucky Mountains (Lydian)
- *What Wondrous Love Is This?* Christian folk hymn (D)

Analysis list (contemporary modal compositions)

- Bartók: *Mikrokosmos II*, No. 37, In Lydian Mode
- Debussy: *La cathédrale engloutie*, from Preludes, Book I. (M)
- Debussy: Nocturnes, No. 2, Fêtes (D)
- Debussy: String Quartet in G minor, Op.10, 1st movement, I. Animé et très décidé (P)
- Fauré: 2 Songs, Op.83, No. 1, Prison (D)
- Charles Griffes: *Poem*, for flute and orchestra (Lydian)
- Gustav Holst: choral fantasy *Christmas Day* (including two carol melodies: *God Rest You Merry, Gentlemen* and *Good Christian Men, Rejoice*, it modulates from E-flat to G and to B, then back to E-flat, an augmented chord contour modulation) (A)
- Holst (arr.): *I Love My Love* (D)
- Nagel: *The Well-Tempered Mode, Songs from the Aeolian*, No. 3. Feeling Sorry
- Nagel: *The Well-Tempered Mode, Songs from the Aeolian*, No. 4. Riding on a Stormy Night
- Nagel: *The Well-Tempered Mode, Songs from the Mixolydian*, No. 3, Minuet
- Nagel: *The Well-Tempered Mode, Songs from the Phrygian*, No. 4, Hopeful
- Ravel: *Sonatine*, first movement (P)
- Ravel: 5 *Mélodies populaires grecques* (5 Greek folk songs, 1906)
 - No. 1 *Chanson de la mariée*. Modéré G-Phrygian (constant A-flat)
- Vaughan Williams: *Along the Field*, 8 Songs for Tenor and Violin, No. 1. We'll to the Woods No More (D)
- Vaughan Williams: *Ten Blake Songs*, No. 9, The Divine Image (D)

Procedures

0:00 Practice identifying modes aurally

- Have students sing previously learned folk melodies and identify the mode of each.
 - *God Rest You Merry, Gentlemen*
 - *Greensleeves*
 - *O Sacred Head, Now Wounded*
 - *Old Joe Clark*
 - *The Ground Hog*

0:03 Brief Review

- Have students name and sing all seven diatonic modes on solfege
- Solicit the difference between the rotational and transpositional approaches
 - *Rotational*: Relative relationships where the modes share the same key signature (and, therefore, all the same pitches)
 - C major and A minor are relatives; they have a rotational relationship (same key signature and pitches)
 - *Transpositional*: Parallel relationships where the modes share the same tonic.
 - C major and C minor are parallels; they have a transpositional relationship (same tonic; different key signatures)

- C major and C Mixolydian have a transpositional relationship: Same tonic; different key signatures; 7th scale degree in Mixolydian must be lowered with an accidental.

0:08 Introduction to 20th-century compositional practice on modality

- Present the following basic information to the class:
Modality was enthusiastically rediscovered by a number of early twentieth-century composers. These scales were unfamiliar to audiences accustomed to major/minor tonality, and so they helped composers to distance themselves from the older style. It is unusual in post-tonal music to find an entire piece that uses only a single scale (with the exception of chromatic and microtonal scales). Rather, one typically finds that only a few measures will use a particular scale, or the melody may conform to the scale while the accompaniment does not, or the music may include only a few notes that seem to imply the scale.

0:10 Analyze (aurally and visually) modal compositions from contemporary composers

- Choose three examples from the Materials list (e.g., Bartok, Vaughan Williams, Debussy, Ravel) and spend approximately 5 minutes on each example. Suggested procedure:
 - Play a recording (or perform on piano) and ask students to identify the mode. Isolate specific measures to help guide their listening and identification.
 - Display the score and ask the students to identify the special chords and/or chord progressions used in the composition; solicit the appropriate Roman numerals to label these chords.
 - Scaffolding, if needed:
 - Solicit special chords in each mode
 - If needed to remind, display the table *Diatonic Triads with Roman Numeral Labels for all Modes* (see 3-W-2)

0:25 Harmonizing modal melodies

- Review the table *Diatonic Triads with Roman Numeral Labels for all Modes* (see 3-W-2)
- Using either a folk melody or an instructor-composed melody, model a process for harmonization (this process is a modification of an approach in the Mind Training section of *Teaching Approaches in Music Theory* (Rogers, 2004, pp. 61-62). Each step in the process is vital.
 1. Listen to and analyze the melody
 2. Identify the mode
 3. Determine the harmonic rhythm: where will chords need to change. Mark each location with an asterisk (*). Be attentive to cadential locations.
 4. Identify and circle all characteristic note(s) that appear in the melody. Reminder: These are “characteristic” in the sense that they diverge from the Common Practice major/minor system.
 - Dorian—sixth scale degree (raised sixth compared to natural minor)
 - Phrygian—second scale degree (lowered second compared to natural minor)

- Lydian—fourth scale degree (raised fourth compared to major scale)
 - Mixolydian—seventh scale degree (lowered seventh compared to major scale)
5. Identify and list all of the available chord choices for each melody note at the points of harmonic changes (*). Consider all diatonic triads that include that note. For each circled characteristic note, consider the resulting characteristic chord as the best choice; this is the opportunity to reinforce the modal sound and add the modal flavor.
 6. Complete the harmonization
 - First, harmonize the special notes
 - Next, focus on the beginning and the end, clearly establishing the tonal center
 - Be attentive to any opportunities for specialized characteristic modal harmonic progressions, particularly at cadential points.
 7. Perform and revise to satisfaction.

0:35 Assignment

- Present composition/harmonization assignment and due date (previous to Lesson 4-W-2)
 - Option 1: Students select or are assigned a very brief modal melody (from only white-key mode options provided by the instructor) and harmonize it following the steps modeled in class. Provide a document with the steps included.
 - Option 2: Each student composes his/her own brief modal melody (white-key mode only) and harmonizes it following the steps modeled in class. Provide a document with the steps included.

0:40 Closure

Lesson 4-A-1: Semester 4, Post-Tonal, Aural Skills, Lesson 1

Focus: Review and Reinforce All Modes

Instructional Time: 30 minutes

Prerequisite Knowledge and Skills for this class

Lesson 4-W-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing and sign all seven diatonic modes on solfege starting on any given pitch, ascending and descending.
- Sing modal folk songs (review/reinforce songs previously learned by rote).
- Aurally identify three major modes (Ionian, Lydian, and Mixolydian) and three minor modes (Phrygian, Dorian, and Aeolian).
- Sight sing on solfege notated modal melodies after identification (major modes).
- Notate melodies in major modes from dictation.

Materials

- Piano/keyboard, board, marker, eraser
- Brief instructor-composed examples for dictation (one Lydian and one Mixolydian)
- Students need staff paper and pencil for dictation activity
- *Greensleeves, What Child is This?* (D)
- *God Rest You Merry, Gentlemen* English traditional Christmas carol (A)
- *Lovely Joan* (English Folk Song) (D)
- *O Sacred Head, Now Wounded*, Christian Passion hymn (P)
- *Old Joe Clark*, Folk Song (M)
- *Rise up, Shepherd, and Follow*, African American spiritual (M)
- *The Ground Hog*, Lonesome Tunes: Folk Songs from The Kentucky Mountains (Lydian)
- *What Wondrous Love Is This?* Christian folk hymn (D)
- Bartók: *Mikrokosmos*, Sz.107, Vol. 1 No. 13 (Ionian)
- Bartók: *Mikrokosmos I*, No. 24, Pastorale (Lydian)
- Bartók: *Mikrokosmos II*, No. 37, In Lydian Mode
- Bartók: *Mikrokosmos*, Sz.107, Vol. 2 No. 48 (Mixolydian)
- Chopin *Mazurka*, Op. 68, No.3 Middle section (mm. 33-44) (Lydian)
- Charles Griffes: *Poem*, for flute and orchestra (1918)
- Poulenc: *Valse* for solo piano (1919) (Lydian)
- Puccini: *Tosca*, Act III “Io de' sospiri” (Or “Un Pastore”) (Lydian)
- Vaughan Williams: *Blackwore by the Stour* for voice and piano (Mixolydian)
- Vaughan Williams: *6 Studies in English Folksong* for cello and piano, No. 4 (Mixolydian)
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 1, Infant Joy
- *Over the Sea to Skye*, Arranged by Douglas E. Wagner (Mixolydian)

Procedures

- 0:00 Review/Reinforce: Sing and sign all seven diatonic modes *in random order* on solfege using movable-*do*, *la*-minor, ascending and descending.
- Name a mode at random and solicit the starting solfege syllable
 - If needed, provide a home tone for *do*, using hand signs have the students audiate syllables until the starting syllable, then begin singing the mode, ascending and descending
 - Optional/Encouraged: Have individual students sing the mode.

- 0:03 Review/Reinforce: Sing modal folk songs (learned in previous lessons) either from memory or from notation (on screen).

Instructor names a mode and asks students to name a previously learned modal folk song (see list in Materials section) that is in that mode. Students sing the song from memory (ideally; notation may be projected on screen, if needed).

Alternatively or if necessary, instructor sings (or asks a student or students to sing) a previously learned modal folk song (see list in Materials section) and the class identifies the mode and then sings the song from memory (ideally; notation may be projected on screen, if needed).

- 0:10 Students differentiate performed minor mode scales (Phrygian, Dorian, and Aeolian) and major mode scales (Ionian, Lydian, and Mixolydian). Instructor can perform and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect.
- 0:13 Students sight-sing selected Lydian and Mixolydian melodies (see Materials section) on solfege (movable-*do*, *la*-minor). Students should first identify and name the mode in the example.
- 0:18 Students notate on staff paper brief instructor-composed melodies in major modes dictated by the instructor: one Lydian and one Mixolydian.
- 0:30 Closure
Encourage students to practice singing the various modes as independent practice to review/reinforce.

Transition to other aural skills content for the remainder of the class time.

Lesson 4-W-2: Semester 4, Post-Tonal, Written Theory, Lesson 2

Focus: Locrian Mode and Tritone

Instructional time for this lesson module: 35 minutes

Prerequisite Knowledge and Skills for this class

Lesson 4-W-1, 4-A-1

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Identify the mode of performed student harmonizations of modal melodies and discuss specifics related to their authenticity and quality.
- Sing, notate, and aurally identify Locrian mode
- Identify Locrian melodies that were written using both key signature approaches: rotational—modal key signature system; transpositional—traditional major/minor key signature system with accidentals.
- Discover the diatonic tritone interval and its implications in each mode
- Analyze advanced contemporary modal repertoire (as time allows)

Materials

- Piano/keyboard, board, marker, eraser
- Students need staff paper, pencil, and their Modal Melody Harmonizations from Lesson 4-W-1
- Bartok: *Mikrokosmos II*, No. 63, Buzzing
- Carlos Chávez, Ten Preludes (No. 4)
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 2, Fleeing quickly
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 3, Angry march.
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 7, Brutal
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 11, Mechanistic

Procedures

0:00 Modal Melody Harmonizations from Lesson 4-W-1

- Select several students to play their harmonized modal melodies on the piano
 - NOTE: These may be pre-selected by the instructor during grading to represent quality examples.
- For each performance:
 - Ask the students to identify the modality of the harmonized modal melody (the composers will verify)
 - Solicit specific observations from the students related to the chord choices and general modal flavor (use of characteristic chords in the given mode)

0:10 Focus on Locrian Mode

- Ask students to sing the Locrian mode on solfege, ascending and descending.
 - Scaffolding:
 - Solicit the starting syllable (applying moveable-do, la-minor)
 - Establish *do*, audiate and then sing *ti* to *ti*, ascending and descending.
- Share: The Locrian mode is rarely used in compositional practice.
 - Solicit why this might be. Guide the students to discover the tritone interval between scale degrees 1 and 5 and why this is so significant (any melodic or harmonic reference to the dominant-tonic function is impossible).
- Have students notate on staff paper the B-Locrian mode (white key version).
- Have the students notate on staff paper the diatonic triads of the Locrian mode and label each with the appropriate Roman numeral.
 - Guide them to notice that the tonic chord is diminished. What are the implications of this?
- Perform or play a recording of one or more pieces in Locrian (see Materials list). Briefly discuss.
- Examine selected melodies (see Materials section) in Locrian.
NOTE: This is continued in the following Aural Skills Lesson, 4-A-2.
 - Project the selected song on the screen.
 - Have the students examine the notated melody to verify the mode. Guide them as needed, especially as it relates to the two different approaches to key signatures for modes.

0:25 The Tritone: Implications related to modality

- Having identified the significant placement of the tritone in Locrian mode, ask the students to identify the scale-degree location of the diatonic tritone in each of the other modes. Write each on the whiteboard (see below).
 - Scaffolding
 - This is relatively easily done using moveable-do, la-minor since it is between *fa* and *ti*. The students need only identify what scale degrees these are in each mode.
 - Ionian: Scale degrees 4 and 7
 - Dorian: Scale degrees 3 and 6
 - Phrygian: Scale degrees 2 and 5
 - Lydian: Scale degrees 1 and 4
 - Mixolydian: Scale degrees 7 and 3
 - Aeolian: Scale degrees 6 and 2
 - Locrian: Scale degrees 5 and 1
 - Ask the students if they observe any implications. Guide them to discover the implications related to the natural resolution of the tritone.
 - Scaffolding
 - What scale degrees are in the tonic triad? (1, 3, 5)

- Where are these scale degrees for each of the modes?
- Which modes do NOT have either of these scale degrees in the diatonic tritone?
 - Ionian/Major and Aeolian/Minor
- For Dorian, Phrygian, Lydian, and Mixolydian modes, each of their tonic triads actually include one note from the tritone interval; another note from the tritone interval in those four modes is the special scale degree that makes them unique from Major and Minor.
 - The characteristic chords in each mode include one note of the tritone interval.
- To what scale degrees will the diatonic tritones in major and minor tend to resolve?
 - Major: 1 and 3 = tonic triad
 - Minor: 3 and 5 = tonic triad
- To what scale degrees will the diatonic tritones in the other modes tend to resolve?
 - AWAY from the tonic triad (1, 3, 5)
- Summary: If the tritone behaves as a “tonicizer,” perhaps this is one reason that major and minor are heard as more stable to human ears (certainly since the beginning of the Common Practice Period).

0:35 Closure

Lesson 4-A-2: Semester 4, Post-Tonal, Aural Skills, Lesson 2

Focus: Locrian Mode & Review of Four Minor Modes

Instructional Time: 30 minutes

Prerequisite Knowledge and Skills for this class

Lesson 4-W-2

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Sing and sign Locrian mode on solfege (using movable-*do*, *la*-minor) starting on any given pitch, ascending and descending.
- Sing and sign all seven diatonic modes on a neutral syllable starting on any given pitch.
- Aurally differentiate Locrian mode from other minor modes.
- Aurally identify modal melodies in Locrian.
- Aurally identify and differentiate modal melodies in four minor modes: Aeolian, Dorian, Phrygian, and Locrian.
- Sight-sing on solfege notated minor mode melodies after identification.
- Notate melodies in minor modes from dictation.

Materials

- Piano/keyboard, board, marker, eraser
- Brief instructor-composed examples for dictation (one Dorian or Phrygian and one Locrian)
- Students need staff paper and pencil for dictation activity
- Bartok: *Mikrokosmos II*, No. 63, Buzzing
- Carlos Chávez, Ten Preludes (No. 4)
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 2, Fleeing quickly
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 3, Angry march.
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 7, Brutal
- Nagel: *The Well-Tempered Mode, Songs from the Locrian*, No. 11, Mechanistic
- Chopin's Mazurka in C# minor, Op. 41, No. 1
- Debussy: String Quartet in G minor, Op.10, 1st movement, I. Animé et très décidé (Phrygian)
- Holst: *I Love My Love*, Cornish folksong (Dorian)
- Nagel: WTM, *Songs from the Phrygian*, No. 2, Powerful, but with anguish
- Nagel: WTM, *Songs from the Phrygian*, No. 4, Hopeful
- Nagel: WTM, *Songs from the Phrygian*, No. 9, Chorale
- Nagel: WTM, *Songs from the Dorian*, No. 1, Breeze (Dorian)
- Nagel: WTM, *Songs from the Dorian*, No. 3, Moderato (Dorian)
- Martin Luther's Phrygian hymn (chorale) *Aus tiefer Not schrei ich zu dir*
- Shostakovich's String Quartet No. 10, Op. 118 (1964), second movement
- Thomas Tallis: Third Tune (The 3rd Mode Melody) *The God of Love My Shepherd Is*
- Vaughan Williams: *Boy Johnny* for voice and piano (Aeolian)
- Vaughan Williams: *Claribel*, for voice and piano (Aeolian)
- Vaughan Williams: *Ten Blake Songs*, song cycle for high voice and oboe No. 5. The Lamb, for Tenor and Oboe (Aeolian)

Procedures

- 0:00 Sing and sign Locrian mode on solfege (using movable-*do*, *la*-minor) starting on any given pitch, ascending and descending. Solicit starting syllable for Locrian; encourage audiation of *do*, then start singing on *ti*.
- 0:02 Sing and sign (using Curwen hand signs) all seven diatonic modes on the neutral syllable “pa,” ascending and descending. Solicit starting syllable for each scale; encourage audiation of the syllables starting on *do* as needed. Hand signs will encourage audiation of the solfege syllables.
- 0:05 Students differentiate performed modes as either Locrian or another minor mode. Instructor can perform the modes (Dorian, Phrygian, Aeolian, Locrian) and/or invite students to do so (vocal on a neutral syllable such as “pa,” or keyboard/instrument). The instructor will need to identify and correct student performances that are incorrect. Challenge the students to specify the other modes as well.
- 0:08 Students identify performed Locrian melodies as Locrian and explain/describe how they determined this. Instructor (or student) performs the Locrian examples in the Materials section.
- 0:12 Students identify performed melodies as Dorian, Phrygian, Aeolian, or Locrian. Instructor (or student) performs selected examples in the Materials section and students identify the mode.
- 0:16 Students sight-sing selected minor mode melodies (see Materials section) on solfege. Students should first identify and name the mode in the example.
- 0:20 Students notate on staff paper brief instructor-composed melodies in minor modes dictated by the instructor: one Dorian or Phrygian and one Locrian.
- 0:30 Closure
Encourage students to practice singing the various modes as independent practice to review/reinforce.

Transition to other aural skills content for the remainder of the class time.

Lesson 4-W-3: Semester 4, Post-Tonal, Written Theory, Lesson 3

Focus: A Brief History of Mode & Mode in Contemporary Pop and Jazz

Instructional time for this lesson module: 45 minutes

Prerequisite Knowledge and Skills for this class

Lesson 4-W-2, 4-A-2

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Describe the historical significance, evolution, and application of modes.
- Identify modes in contemporary genres other than art music such as pop and jazz.

Materials

- Piano/keyboard, board, marker, eraser
- Instructor created visuals to project on screen
 - PowerPoint to accompany History of Modes lecture, if desired
- The Beatles: “Eleanor Rigby” 1966 (D)
- George Benson: “On Broadway” 1978 (M)
- Leonard Bernstein: Broadway Musical *West Side Story*, “Maria” (Lydian mode, the main theme uses the melodic interval of a tritone)
- John Coltrane: “Impressions” 1963 (D)
- Miles Davis: “So What?” 1959 (D)
- Chris Isaak: “Wicked Game” 1989 (D)
- Santana: “Evil Ways” 1969 (D)
- Santana: “Oye Como Va” 1971 (D)
- Bob Seger: “Old Time Rock and Roll” (M)

Procedures

0:00 Historical background of Mode

- Drawing on information in the narrative summary below (*A Brief History of Mode*), present a brief lecture focusing on a historical perspective of mode. Emphasize the following periods/themes:
 - Pre-Common-Practice Period (Medieval and Renaissance)—Modes (church modes).
 - Common-Practice Period (Baroque, Classical, Romantic)—Functional Tonality (major/minor) dominated, but modal folk music existed in parallel.
 - Post-Common-Practice Period (20th and 21st Century/Modern/Contemporary)—Mixture of tonal, post-tonal, and atonal music; revival of modes; evolution of white-key modes; compositions based on modal folk music.
- Integrated when appropriate, play excerpts from representative modal repertoire in each period. See Tables 4.6—4.11 and the Materials lists of all lesson plans.

A Brief History of Mode

Mode, the oldest and most long-lasting musical scale type in the western world, possesses a profound significance in both historical context and compositional practice. Its long history of evolution vividly depicts the major musical characteristics of each musical style period. From eight medieval church modes to seven modern diatonic modes, the longevity of the historical development of mode places it as one of the most quintessential elements in Western music.

While the term *mode* first emerged in Ancient Greece, the foundation for the definition as used in current Western music theory and practice developed in Europe in the Middle Ages. Consisting of eight modes—four pairs of authentic–plagal modal octaves with finals on d, e, f, and g, respectively—the original eightfold modal system was well documented in Italy during the 14th and 15th centuries, evidenced by influential theory treatises such as Marchetto’s *Lucidarium* (1318) and Tinctoris’ *Liber de natura et proprietate tonorum* (1476). Sixteenth-century theorists extended the original eightfold modal system to a 12-mode system. This new theory of 12 modes was illustrated in the well-known *Dodecachordon* (1547) by Glarean and *Istitutioni harmoniche part iv* (1558, 1573) by Zarlino. As a result of the increasing needs of transposing modal scales on the organ and the consequential development of a new tuning system, the 17th century witnessed a slow-paced but progressive transition from the modal system to 24 major and minor keys. The evolutionary transition from modality to tonality initiated the Common Practice era of Western music, featuring tonal harmony and major/minor tonality as the mainstream in music theory and practice during a 250-year span, roughly from mid-17th century to the opening of the 20th century). The modal system was replaced by the newly established tonal system; however, modal scales survived and evolved from the traditional 8 or 12 modes to 7 modes by avoiding the differentiation between authentic and plagal modes. Marginalized but featured in European folk music through 19th-century Romanticism and Nationalism, modal scales eventually re-emerged as a musical resource in the 20th and 21st centuries, increasingly and consistently inspiring worldwide musicians.

In compositional practice, mode played a central role in Medieval plainchants and Renaissance polyphony. Although any pre-Baroque music seems to be conceptually remote and unfamiliar to contemporary ears, a few Renaissance modal hymns are well-preserved as a result of being borrowed by successive composers throughout the generations in new settings of their original hymns. A well-known example is Martin Luther's Phrygian hymn (chorale) “Aus tiefer Not schrei ich zu dir” (published in 1524), which was borrowed by J. S. Bach in his 6-movement chorale cantata *Aus tiefer Not schrei ich zu dir*, BWV 38 (composed in 1724). Later composers, including Felix Mendelssohn and Max Reger, also wrote compositions for organ based on this same hymn tune. The modal works of Renaissance composers such as Josquin, Thomas Tallis, Palestrina, and Lassus are also models and resources for contemporary composers and performers. During the 250-year Common Practice Period, mode was closely associated with traditional folk tunes; these became great

inspirations for 19th-century composers influenced by Nationalism. Well-known composers of the time integrated diverse folk melodies into their works to express national feelings, including Chopin, Liszt, Mahler, Janáček, Fauré, Grieg, and Wolf. Mode was revitalized during the post-Common Practice period of the 20th and 21st centuries, when functional tonality lost its predominance in compositional practice. The revival of modes by late 19th- and early 20th-century composers resulted in a great number of compositions based on modality, especially the traditional folk and national music. The continued exploration and rediscovery of mode and modality has become one of the major trends in the music world since the beginning of the 20th century, as music experienced the explosion of diversity to an unprecedented extent. The diatonic modes have been used frequently by contemporary composers such as Bartok, Debussy, Vaughan Williams, Sibelius, Carl Nielsen, and Jody Nagel.

0:25 Modes in Contemporary Pop and Jazz

- Expose the students to a variety of popular and jazz selections that are modal. See the Materials list. Play recordings (and view scores when possible and desired). Ask students to identify the mode of each.

0:45 Closure

Encourage students to discover and share more modal repertoire.

Lesson 4-A-3: Semester 4, Post-Tonal, Aural Skills, Lesson 3

Focus: Modes in Pop and Jazz

Instructional Time: 25 minutes

Prerequisite Knowledge and Skills for this class

Lesson 4-W-3

Behavioral Objectives

At the conclusion of this lesson, students will be able to:

- Aurally identify modal melodies in popular music and jazz
- Sight-sing notated modal melodies (pop, jazz, etc.) on solfege (using movable-*do*, *la*-minor)
- Improvise and compose modal melodies in different styles (folk, pop, jazz, etc.)

Materials

- Piano/keyboard, board, marker, eraser
- The Beatles: “Eleanor Rigby” 1966 (D)
- George Benson: “On Broadway” 1978 (M)
- Leonard Bernstein: Broadway Musical *West Side Story*, “Maria” (Lydian mode, the main theme uses the melodic interval of a tritone)
- John Coltrane: “Impressions” 1963 (D)
- Miles Davis: “So What?” 1959 (D)
- Chris Isaak: “Wicked Game” 1989 (D)
- Santana: “Evil Ways” 1969 (D)
- Santana: “Oye Como Va” 1971 (D)
- Bob Seger: “Old Time Rock and Roll” (M)

Procedures

0:00 Review/Reinforce: Sing and sign all seven diatonic modes on solfege using movable-*do*, *la*-minor, ascending and descending.

- Name a mode at random and solicit the starting solfege syllable
- If needed, provide a home tone for *do*, using hand signs have the students audiate syllables until the starting syllable, then begin singing the mode, ascending and descending
 - Optional/Encouraged: Have individual students sing the mode.

0:04 Students identify the mode of contemporary pop and jazz songs. Play recordings of or instructor/students perform the examples in the Materials section. If needed, guide the students to determine the mode by isolating the melody, distinctive phrases, cadential points, etc.

- If desired, have students sight-sing selected melodies.

0:20 Students improvise brief diatonic modal melodies in pop and jazz styles. Ask peer students to identify the mode (and the improviser to confirm).

0:25 Closure

CHAPTER SIX

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Modality, while possessing profound significance in both historical context and compositional practice, does not receive sufficient attention in current music theory study, despite the fact that a large amount of the 20th-century repertoire is based on modal and scalar systems. As a result of the emphasis on traditional tonal harmony in Western music education, most college music theory courses concentrate almost exclusively on the major/minor scalar system while marginalizing other types of scales such as diatonic modes. Common undergraduate theory textbooks that include the introduction of modality often only list the basic modal and scalar structures without offering further analysis and application; many other textbooks do not mention the term at all. Multiple factors contribute to this, including the lack of a comprehensive and practical approach to analyzing 20th-century modal compositions and the lack of a well-designed pedagogical approach to teaching modal theory. This project addresses this curricular deficiency via the development of a sequential instructional program on diatonic modality for the undergraduate music theory curriculum. Applying a comprehensive musicianship approach, the project facilitates instruction that makes conceptual connections through listening, analysis, composition, and performance. The final product includes:

- A firm and broad pedagogical foundation for teaching diatonic modality in the undergraduate music theory curriculum—a research- and learning-theory-based foundation that supports the construction of the detailed scope and sequence. Three instructional principles in particular provide the foundation for the curriculum: sound before symbol, spiral learning, and comprehensive musicianship.

- A detailed curriculum guide for teaching diatonic modality in the undergraduate music theory core curriculum with a specific focus on the first two years of theory study: fundamentals, diatonic harmony, chromatic harmony, and 20th-century music theory. This includes specific pedagogical recommendations, a comprehensive scope and sequence delineated in three curriculum mapping tables, and thorough sequenced instructional guidelines for each step in the teaching-learning process. The 24 written theory and aural skills plans were specifically designed to be integrated throughout the typical four-semester curriculum. All of the plans are strongly activity-based and built around an extensive core of modal repertoire from all style periods including contemporary pop and jazz, emphasizing the authentic connection with music throughout history.

This document includes the important instructional guidance to provide collegiate music majors with a solid grounding in diatonic modality, both aural and written, resulting in a vastly improved understanding of pre- and post-tonal compositional practice—especially applications of modality in contemporary music that moves beyond functional harmony.

Recommendations for Additional Applications and Future Research

While the focus of this project was clearly on the teaching of diatonic modality in the college music theory setting, it has other important implications as well. Music theory pedagogy is in its relative infancy. While in the past, knowledge of the subject matter had been considered the sole criterion for becoming a professor of music theory, the profession has begun to recognize that pedagogical content knowledge—the integration of subject expertise and skilled teaching in that subject area—is equally important given the primary goal of effective student learning. This project's process and product can serve as models for the development and

application of pedagogical content knowledge. College music professors desiring to improve their effectiveness in the classroom can commit to 1) investigating and applying current learning theory; 2) developing a carefully considered scope and sequence for the overall curriculum; and 3) designing very detailed, activity-based lesson plans following the template of the 24 lessons in this guide.

Specific to music theory, the comprehensive diatonic modality curriculum and associated lesson plans are models for the integration of the aural and written components common in the typical collegiate curriculum. The application of sound-before-symbol pedagogy can and should be applied in all areas of music theory study—music is, after all, first and foremost an aural art form. Consideration of spiral learning applications is also very valuable, recognizing that concepts and skills in music theory must be developed very sequentially and via extensive repetition and reinforcement. Perhaps most significant of all in music theory is the adoption of strategies drawn from the foundational principles of Comprehensive Musicianship through Performance. Identifying a core of diverse repertoire that includes as salient features the targeted concepts and skills is profoundly important. The author can certainly attest that this is a challenging and time-consuming task, but the reward is beyond measure in terms of increasing the effectiveness and authenticity of the resulting teaching-learning process. The lesson plans in this guide serve as ample evidence of this fact. Students struggle to anchor their learning when it is presented in the abstract, ironically isolated from the very source of the concepts—the great breadth of music created by all cultures across all times.

Beyond these important broad pedagogical concepts, the specific instructional strategies integrated into each lesson plan are worthy of emulation as well. These include careful consideration of prerequisite knowledge and skills, thoughtful pacing, planning to address a

variety of learning styles/modes, effective questioning, guidance via hierarchical scaffolding, teacher modeling, integrated assessment, and much more. Music theory instructors are encouraged to study the lesson plans in this guide and to use them as literal templates for the teaching of other content.

While the target population for this curricular guide is the college music major, aspects of the curriculum would certainly be appropriate to the high school music theory setting—especially AP music theory—and even the ensemble setting. Given the value of performing modal repertoire in high school bands, orchestras, and choirs, the integration of correlated concept and skill learning is imperative as part of quality music education. For example, how much better would the intonation be, given the more foreign nature of the modes than the major/minor scales, if students were singing and understanding the structure of the specific mode? Or how much more rewarding the educational and performance experience if the students understood the historical context of the composition, especially if this is rooted in a modal folk song of a different culture or time.

As a result of this project, perhaps music theorists will begin to consider other marginalized theory topics that should be included in the curriculum for music majors. While the initial concern is that the curriculum is already very intense, a strong argument can be made that some commonly included content might be less important than tradition has established. This is the topic for a separate article or dissertation, but it can certainly be agreed that this is the nature of curriculum evaluation and development: establishing priorities and making choices as the content in the subject area grows and evolves.

Conclusion

The integration of much more detailed study of diatonic modality is a crucial step in the modernization of the collegiate music theory curriculum, given its some common application in 20th- and 21st-century art and popular music. This pedagogical guide is an important initial step. Music theory instructors are encouraged to extend this approach by 1) drawing on the extensive modal repertoire tables as resources for listening activities throughout the curriculum; 2) integrating the study of diatonic modality into more advanced music theory courses, including graduate level courses through the exploration of more complex modal repertoire; and 3) applying the learning-theory-based approach to other content in the music theory curriculum. If applied effectively, the innovative curriculum in this guide has the potential to not only significantly improve the teaching and learning of diatonic modality in undergraduate music theory but also to serve as a model that may help transform the overall approach to collegiate music theory instruction.

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