

Component Area Option (a): Mathematics/Reasoning - MUSI - 2214

Restricted Use - AR -UGRD Course - REVISE existing Core Course <or> Revise existing non-core course to ADD to Core

General Information

Please use this form to:

- **REVISE** a course that is already on the Core course list.
- **ADD** to the Core course list an existing permanent course that is not already on the Core course list

Course Ownership

Department* **Moores School of Music**

Will the course be cross-listed with another area?*

- Yes
 No

If "Yes", please enter the cross-listed course information (Prefix Code Title)

Implementation

Academic Year to begin offering course:*

- 2015
 2016
 2017

Term(s) Course will be TYPICALLY Offered:*

- Fall (including all sessions within term)
 Spring (including Winter Mini all sessions within term)
 Summer (including Summer Mini and all sessions within term)

Justification for changing course

Justification(s) for Adding Course*

1. REVISE EXISTING non-CORE COURSE ADD TO CORE

Justification "Other" if selected above:

Importing course information for revising existing Core course

Instructional Area/ Course Prefix* MUSI

Course Number* 2214

Long Course Title* Techniques of Music Since 1900

Short Course Title Techniques of Music Since 1900

Instruction Type and Student Contact Hours

Instruction Type* Lecture ONLY

Contact Hours

Student Contact Hours are determined by a number of factors, including instruction type, and are used to determine the accuracy of credit hours earned by accrediting agencies and THECB. Please contact your college resource for assistance with this information.

Student Contact Hours must match the instruction type.

Eg: If Lecture ONLY, then Student Contact Hours for Lab must be zero.

Eg: If Lab ONLY, then Student Contact Hours for Lecture must be zero.

Lecture* 2

Lab* 0

Grade Options

Grade Option* Letter (A, B, C.....)

CIP Code

The CIP Code is used by the university and the THECB to determine funding allocated to the course, which means that selecting the most helpful valid code may have an effect on your course.

If assistance is needed with code selection, please contact your college resource.

CIP Code Directory: <http://www.txhighereddata.org/Interactive/CIP/>

CIP Code must use this format:
##.####.## ##

Course Repeatability

Can this course be repeated for credit?*

Yes No

If Yes, how often and/or under what conditions may the course be repeated?

CIP Code* 50.0904.00 03

Catalog Descriptions

Prerequisite(s):* MATH 1310; MUSI 2210 and passing grade on Theory Proficiency Exam III.

Corequisite(s)

Course Description*

Study of compositional practices of the twentieth century and later, through analysis and composition exercises.

Course Notes

Authorized Degree Program(s)

Impact Report *

Impact Report for musi 2214

Prerequisite:	MUSI 2171 - Aural Skills IV
	MUSI 3215 - Introduction to Large Forms
	MUSI 3216 - Analysis
	MUSI 4220 - Choral Conducting I
	MUSI 4230 - Instrumental Conducting I
	MUSI 4312 - Orchestration
Programs	Applied Music, B.M.
	Music (Areas of Elective Studies), B.M.
	Music Composition, B.M.
	Music Minor
	Music Theory, B.M.
	Music, B.A.

Core Curriculum Information

For additional guidance when developing course curriculum that will also meet the Core Curriculum requirements, please refer to the Undergraduate Committee website for Core Curriculum:

http://www.uh.edu/undergraduate-committee/doc_2014-core-review.html

Therein you will find a chart for the required and optional competencies based on the Core Component Area (Core Category) selected.

Component Area for which the course is being proposed (select one)*

Component Area Option (a): Mathematics/Reasoning

List the student learning outcomes for the course*

Mathematics/Reasoning - Component Area Option

Scholars throughout centuries have acknowledged the inherent properties common to music and mathematics. Like those who study advanced mathematics, students engaged in the study of advanced music theory acquire skills in analysis and reasoning (this was recognized by the inclusion of Theory III and Techniques in Music Since 1900 as a Math/Reasoning course in previous CORE curriculum).

Students will learn basics of post-tonal set theory and apply empirical and quantitative methodologies in the analysis of musical processes, works, and characteristics of musical styles after 1900. Students will attain fluency in compositional practices of the twentieth century and later, through analysis of representative music literature and composition of musical exercises involving advanced chromatic tonal harmony and post-tonal techniques.

Competency areas addressed by the course*

Communication Skills

Critical Thinking

Empirical & Quantitative Skills

Because we will be assessing student learning outcomes across multiple core courses, assessments assigned in your course must include assessments of the core competencies. For each competency selected above, indicated the specific course assignment(s) which, when completed by students, will provide evidence of the competency.

Provide (upload as attachment) detailed information, such as copies of the paper or project assignment, copies of individual test items, etc. A single assignment may be used to provide data for multiple competencies.

**Critical Thinking,
if applicable**

Students will be engaged in musical analysis, which involves application of structured thinking to model musical processes. Students will learn to synthesize musical data in symbolic terms and develop informed conclusions about musical works studied. In the attached essay assignments and Analysis Project, students will identify and model musical elements and processes with technical symbolic markings, identify and explain factors relevant to musical performance, and provide a critical appraisal of style elements. The appropriate use of analytical tools will require that the student gain an understanding of each tool's limitations. Music since 1900 has often been eclectic, requiring performers and listeners alike to have both a diverse set of tools with which to approach the music, and the judgment to know which tools will yield the most reasonable results. Students will be required to develop convincing and logical arguments, which will in turn demand that they expand their formal reasoning skills and command of logic.

Communication Skills, if applicable

The attached Analysis Project and Paper Assignment illustrate that students will develop skills in explaining musical elements and processes verbally, as well as through symbolic musical representations. The essential goal in this course is that the student achieve a broad understanding of the musical techniques in the era after ca. 1900, in sufficient depth to enable competent performance of music using these techniques. Students will develop mastery of new materials and their associated terminology/symbology, enabling musical communication in more informed musical performances and verbal communication in more nuanced critical discussion of music.

Empirical & Quantitative Skills, if applicable

Analysis of much music composed after 1900 is now couched to a considerable extent in mathematical terms, including applications of set theory, a widely accepted methodology for numerical expressions of pitch relations in music. Even more traditional musical phenomena, being essentially abstract, are represented symbolically. Student assignments integrating quantitative methodologies are documented in the attached exercises. Specific topics covered employing numerical representations include tall chords and jazz harmonies, ordered and unordered pitch--class sets, subset relations, interval vectors,

Teamwork, if applicable

**Social
Responsibility, if
applicable**

**Personal
Responsibility, if
applicable**

Syllabus

Syllabus* Syllabus Attached

**Will the syllabus
vary across
multiple section
of the course?*** Yes No

**If yes, list the
assignments that
will be constant
across sections**

Important information regarding Core course effectiveness evaluation:

Inclusion in the core is contingent upon the course being offered and taught at least once every other academic year. Courses will be reviewed for renewal every 5 years.

The department understands that instructors will be expected to provide student work and to participate in university-wide assessments of student work. This could include, but may not be limited to, designing instruments such as rubrics, and scoring work by students in this or other courses. In addition, instructors of core courses may be asked to include brief assessment activities in their course.

Additional Information Regarding This Proposal

Comments:

CBM003 ADD/CHANGE FORM

Undergraduate Council
 New Course Course Change
 Core Category: Math/Reason Effective Fall 2014
2015

or

Graduate/Professional Studies Council
 New Course Course Change
 Effective Fall 2013

1. Department: MUSIC College: CLASS
2. Faculty Contact Person: Tim Koozin Telephone: 713-743-3318 Email: tkoozin@uh.edu
3. Course Information on New/Revised course:
 - Instructional Area / Course Number / Long Course Title:
MUSI / 2214 / Techniques of Music Since 1900
 - Instructional Area / Course Number / Short Course Title (30 characters max.)
MUSI / 2214 / TECHNIQUES OF MUSIC SINCE 1900
 - SCH: 2.00 Level: SO CIP Code: 5009040003 Lect Hrs: 2 Lab Hrs: 0
4. Justification for adding/changing course: To meet core curriculum requirements
5. Was the proposed/revised course previously offered as a special topics course? Yes No
 If Yes, please complete:
 - Instructional Area / Course Number / Long Course Title:
 / /
 - Course ID: Effective Date (currently active row):
6. Authorized Degree Program(s): B.M., B.A.
 - Does this course affect major/minor requirements in the College/Department? Yes No
 - Does this course affect major/minor requirements in other Colleges/Departments? Yes No
 - Can the course be repeated for credit? Yes No (if yes, include in course description)
7. Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
MUSI / 2214 / Techniques of Music Since 1900
 - Course ID: 34721 Effective Date (currently active row): 82205
9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)
 Cr: 2. (2-0). Prerequisites: MATH 1310; MUSI 2210 and passing grade on Theory Proficiency Exam III.
 Description (30 words max.): Study of compositional practices of the twentieth century and later, through analysis and composition exercises.
10. Dean's Signature: _____ Date: _____
 Print/Type Name: Dr. Sarah Fishman

REQUEST FOR COURSES IN THE CORE CURRICULUM

Originating Department or College: Music

Person Making Request: Timothy Koozin

Telephone: (713)743-3318

Email: tkoozin@uh.edu

Dean's Signature: _____

Date: September 8, 2014

Course Number and Title: MUSI 2214. Techniques of Music since 1900. (Please also see the proposal for MUSI 2210. Music majors are required to take both 2210 and 2214. The two courses together will be required to fulfill core credit.)

Please attach in separate documents:

- Completed CBM003 Add/Change Form with Catalog Description
- Syllabus

List the student learning outcomes for the course (Statements of what students will know and be able to do as a result of taking this course. See appended hints for constructing these statements):

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Component Area for which the course is being proposed (check one):

- | | |
|--|---|
| <input type="checkbox"/> Communication | <input type="checkbox"/> American History |
| <input checked="" type="checkbox"/> Mathematics | Government/Political |
| Science | |
| <input type="checkbox"/> Language, Philosophy, & Culture | <input type="checkbox"/> Social & Behavioral Science |
| <input type="checkbox"/> Creative Arts | <input checked="" type="checkbox"/> Component Area Option |
| <input type="checkbox"/> Life & Physical Sciences | |

Competency areas addressed by the course (refer to appended chart for competencies that are required and optional in each component area):

- | | |
|---|--|
| <input checked="" type="checkbox"/> Critical Thinking | <input type="checkbox"/> Teamwork |
| <input checked="" type="checkbox"/> Communication Skills | <input type="checkbox"/> Social Responsibility |
| <input checked="" type="checkbox"/> Empirical & Quantitative Skills | <input type="checkbox"/> Personal Responsibility |

Because we will be assessing student learning outcomes across multiple core courses, assessments assigned in your course must include assessments of the core competencies. For each competency checked above, indicated the specific course assignment(s) which, when completed by students, will provide evidence of the competency. Provide detailed information, such as copies of the paper or project assignment, copies of individual test items, etc. A single assignment may be used to provide data for multiple competencies.

Critical Thinking:

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Communication Skills:

The attached Analysis Project and Paper Assignment illustrate that students will develop skills in explaining musical elements and processes verbally, as well as through symbolic musical representations. The essential goal in this course is that the student achieve a broad understanding of the musical techniques in the era after ca. 1900, in sufficient depth to enable competent performance of music using these techniques. Students will develop mastery of new materials and their associated terminology/symbology, enabling *musical* communication in more informed musical performances and *verbal* communication in more nuanced critical discussion of music.

Empirical & Quantitative Skills:

Analysis of much music composed after 1900 is now couched to a considerable extent in mathematical terms, including applications of set theory, a widely accepted methodology for numerical expressions of pitch relations in music. Even more traditional musical phenomena, being essentially abstract, are represented symbolically. Student assignments integrating quantitative methodologies are documented in the attached exercises. Specific topics covered employing numerical representations include tall chords and jazz harmonies, ordered and unordered pitch-class sets, subset relations, interval vectors,

Teamwork:

Click here to enter text.

Social Responsibility:

Click here to enter text.

Personal Responsibility:

Click here to enter text.

Will the syllabus vary across multiple section of the course? Yes No

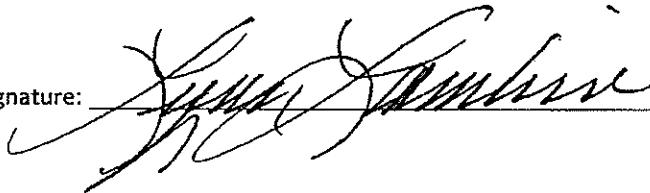
If yes, list the assignments that will be constant across sections:

Click here to enter text.

Inclusion in the core is contingent upon the course being offered and taught at least once every other academic year. Courses will be reviewed for renewal every 5 years.

The department understands that instructors will be expected to provide student work and to participate in university-wide assessments of student work. This could include, but may not be limited to, designing instruments such as rubrics, and scoring work by students in this or other courses. In addition, instructors of core courses may be asked to include brief assessment activities in their course.

Dept. Signature: _____



TECHNIQUES OF MUSIC SINCE 1900: SYLLABUS
MOORES SCHOOL OF MUSIC
UNIVERSITY OF HOUSTON

MUSI 2214, [Date, Time]

[Professor]

Section 00000

rm. 000

office: 000

[Email]

[Phone]

[Course web page]

Prerequisites: MUSI 2211, MATH 1310 (core curriculum requirement) and passing grade on Theory Proficiency Exam III.

Course Objectives and Learning Outcomes: Students will learn basics of post-tonal set theory and apply empirical and quantitative methodologies in the analysis of musical processes, works, and characteristics of musical styles after 1900. Students will attain fluency in compositional practices of the twentieth century and later, through analysis of representative music literature and composition of musical exercises involving advanced chromatic tonal harmony and post-tonal techniques.

Required Texts:

Kostka, Stefan. *Materials and Techniques of Twentieth-Century Music*, 3rd ed.

Benjamin, Horvit & Nelson. *Techniques and Materials of Tonal Music*, 7th ed.

Benjamin, Horvit & Nelson. *Music for Analysis*, 6th ed.

The e-Workbook is available to UH students here (password required):

http://www.uh.edu/musicstudents/theory/Workbook_part_3.pdf (chromatic)

http://www.uh.edu/musicstudents/theory/Workbook_part_4.pdf (twentieth-century materials)

Course Schedule (*subject to change*):

Midterm Exam: [Date]

Semester Composition Project due: [Date]

Final Exam: [Date]

Grading and Policies:

Exams (2 x 25%) 50%

Daily work 40%

Semester Composition Project 10%

Four absences are allowed for any reason. There will be no "excused" absences beyond that number.

Fifth absence lowers final grade by a minus.

Sixth absence lowers final grade by an additional minus.

Seventh absence results in being dropped from the course (resulting in a W or F as appropriate).

Tardies: Three count as one absence.

Last day to drop without a grade: [Date] Last day to drop or withdraw: [Date]

Assignments are due on the appropriate day at the start of class.

Please obtain the phone number of a classmate to get information in case of absence.

Always bring score paper.

Students are expected to be in class and on time. No late assignments will be accepted.

UH Policies on Academic Honesty can be found online at http://www.uh.edu/provost/policies/uhhonesty_policy.html.

You are expected to do your own work on all assignments, quizzes, and exams unless instructed differently. Problems with academic dishonesty will be handled according to the procedures outlined in the undergraduate student handbook and in the undergraduate course catalog. Please note that the mere suspicion of academic dishonesty is enough to initiate official action; please do not put yourself in the position of having to deal with this kind of situation.

Students with disabilities are asked to bring to the instructor's attention any special accommodations they may require. Students will document a disability with the UH [Center for Students with Disabilities](#) (phone: 713 743 5400). The CSD will provide recommendations to the instructor and student to help in accommodating a disability.

Schedule
(subject to revision)

Week	Topic / chapter in T&M, Part IV	
1	Introduction / 1-3	Irregular & composite meters
2	cont'd (rhythm & meter)	polyrhythm; multimeter; polymeter
3	some new tools	
4	Tertian Harmony / 4	harmonic functionality
5	Diatonic Modes / 5	
6	Exotic Scales / 6	collection vs. mode
7	Pandiatonicism / 7	
8	Quartal & Secundal Harmony / 8	
10	Interval Music / 10	atonality; set theory
11		(continued)
12	Serialism / 11	
13	Recent Trends / 12	aleatory; minimalism; indeterminacy
14	review & summary	
	last class period: <i>Final Exam</i>	<i>analysis project due</i>
[date]	Final ([time]): <i>composition project, to be submitted and performed</i>	

Write a paragraph comparing the harmonic languages of the two pieces below. In particular, address the issue of functionality.

Will You Love Me in December As You Do in May?

Ernest R. Ball

Giant Steps

John Coltrane

MUSI 2214: Techniques of Music Since 1900

Analysis Project

Topic: Analysis of a 20th-century work of your choice (must be approved by the instructor; see under Guidelines, below).

Length: 3-5 pages, **typed, double-spaced**, including short examples/illustrations; the complete score must accompany the paper.

Due: [Date.] Late papers cannot be accepted.

Suggested *modus operandi*:

1. Select music for analysis (see under Guidelines, below).
2. Analyze, using all relevant techniques and concepts learned in this course (and in previous semesters). SHMRG will be a useful checklist.
3. **Organize** your findings; plan a logical and coherent presentation. An outline will be invaluable for this. Note what short examples or other illustrations will be needed. (See under Help, below.)
4. Write a draft of the paper.
5. Prepare any short examples, graphs, etc.
6. Read your draft critically, marking corrections.
7. Prepare your final copy, placing examples, etc., neatly and logically.

Guidelines:

1. a. The piece chosen for your analysis should be of moderate size, or even on the short side, depending on its complexity. It would also be possible to write on a small collection of miniatures.
b. It should be from your own repertoire, or something in which you have a particular interest.
c. The work must be not only from the 20th century, but *of* the 20th century.
d. In any case, the instructor's approval is necessary, so begin looking into this without delay.
2. **Do not mark up library copies!** If you use a library copy, make a photocopy to mark up (and hand in). You may prefer to do this even with your own scores.

Help is available:

1. There are a number of books in the Music Library (and in the Main Library) dealing with the writing of reports, papers, etc. A brief guide to these is on the instructor's reserve in the Music Library.
2. The guide on reserve, mentioned above, also contains a few tips.
3. The instructor will be happy to help you at any stage of the process, *time permitting*--so get started early.

MUSI 2214
Paper Assignment

René Clausen, *Psalm 150*

This piece is on reserve in the Music Library, as is a recording. You will need to make a copy of the entire piece to submit along with your paper, which will consist of your responses to the following:

1. Identify the category of vertical sonorities found in mm. 1-6.
2. How is meter treated in mm. 1-37?
3. Provide a harmonic analysis for mm. 7-10.
4. What compositional device is employed in the Soprano, Alto, and Tenor in mm. 19-20?
5. What compositional device is employed in the Soprano and Alto in mm. 29-31?
6. Briefly discuss the metric/rhythmic situation in mm. 66-93.
7. Analyze the chords in m. 50, m. 60, m. 104, and m. 155.
8. What kind of chord occurs in the left and of the accompaniment in m. 53? In the right hand in mm. 94-95?
9. What scale is used in mm. 67-81? What is the local pitch center?
10. What technique best describes the music in mm. 133-147? Elaborate.
11. What scale is used in mm. 148-end?
12. What is the initial pitch center? The last pitch center? How are the pitch centers established?
13. Discuss the factors that shape the piece overall. Consider the various techniques used, the effect of tonality/centricity, the use of dissonance, rhythm, meter, tempo, etc. Also take into account the text as an organizing force. You may wish to draw a chart, and refer to that in your discussion.

Note that the order in which these items have been posed is not necessarily to order in which you must discuss them. Organizing your paper logically will be a large part of your task in this assignment.

Your paper must be typed (word-processed) with proper margins. Musical examples, if used, must be complete, and neatly and logically placed. A copy of the score, with appropriate (and NEAT) markings should be attached as an appendix. If you do not use the interlinear examples, please be sure that your references to the music are clear and specific. **Collaboration is not acceptable on this assignment.** It is not necessary that you use any sources except the score and your own analytical skills, but if you do use other sources of any kind, they must be used and cited properly.

COMPOSITION PROJECT

What: A piece for any instrument, voice, or combination available in class. (If you wish to use other/additional forces, you must get the extra people to class for the performance.)

Content: Your piece should display several of the techniques studied this semester. Be sure to consider rhythm and meter, and perhaps texture and timbre, as well as melody and harmony.

Length: Pieces should run about 2 minutes in performance; pieces at slower tempi will probably need to be a bit longer.

Form: That is up to you. Sectionalized forms (ABA, ABCA, ABCBA, rondo, etc.) often work well for this material; contrasting techniques may be used to create contrasting sections.

Modus operandi: Composers work in many different ways. Some find it easiest to begin with a motivic idea or two; others find it best to begin with a formal plan for the piece as a whole. In either case, begin working early, and jot down ideas in a “sketchbook.” Once the materials have taken shape in your mind, work out the details (transitions, accompaniment patterns, etc.). Try to have a draft completed soon enough that you can make small revisions, if needed, before preparing the final copy.

Final copy: Must be neat! Pencil is acceptable; just be sure it is dark enough (people will have to read these). All notational conventions should be observed: braces/brackets for systems, barlines crossing the appropriate staves, etc. Performance directions, including tempo, dynamic, and articulation markings, are important. The **score**, which is to be handed in, may be in C. **Parts** must be provided as necessary, and must be transposed if appropriate.

Grading: The compositions will be graded primarily on the craftsmanship displayed in them: the choice and handling of the materials, the musical structure of the piece, and the handling of the medium chosen.

Help is available. In many cases, the pieces you have consulted for your analysis paper and scavenger hunt may serve as models.

Due: At final exam time—[Date & time]—**ready for performance.**

Exercises

Calculate interval class vectors for the following excerpts.

1. Bartók, String Quartet No. 2, II., mm. 13-24.

A musical score for two staves. The top staff is in treble clef and contains a melodic line with various intervals, including a tritone. It features a dynamic marking of *sf* (sforzando) and a *ritard.* (ritardando) marking. The bottom staff is in bass clef and contains a rhythmic accompaniment of eighth notes. The key signature has one flat (B-flat), and the time signature is 2/4.

2. Schoenberg, Klavierstück, op. 19/4, mm. 1-2.

A musical score for a single staff in treble clef. The key signature has two flats (B-flat and E-flat), and the time signature is 4/4. The score includes the German text "asch, aber leicht" above the first few notes. The dynamics are marked *p* (piano) at the beginning and end, and *f* (forte) in the middle. The melody consists of a series of chords and intervals.

3. The Dorian, Phrygian, and Lydian modes.

4. Webern, Five Movements for String Quartet (1909), IV

a) m. 2

b) m. 4

c) m. 12

5.

a) ea o itan Minor

b) ea o itan Ma or

c) ungarian Minor

d) ungarian Ma or

5.

a) W o e tone

b) Scala Enigmatica

c) ctatonic

sf sf ff sf fp fp

pes.... sf fp sf

420. Cinque Frammenti di Saffo

Allegretto molto comodo ($\text{♩} = 58-60$)

Dallapiccola

(appena cedendo...)

pp giocando

(con fantasia; tranquillo)
con Ped.

Canto *ppp* (tranquilo; recitando)

Pie - na splen - de - va la lu - na quan - do pres - so l'al - ta - re si fer -

(non arp.)

Str. } minor 10th } minor 10th } Major 9

ppp sost.

Trpt., Vla., Hn.

Picc ~~una~~ *piucch. 12* *col. and row.* Rubato - - - - -
 (movendo appena - - - - - cedendo appena)

ma - ro - no: _____

Major 9th

row changes did not follow rhythmic grouping.

P₁₁ *P₁₀* *P₉*

Cls. 3 3 3 3

PPP senza colore

a tempo; flessibile
pp Pitches from *P₀*

e le Cre - te si con ar - mo - ni - a

contraction of cell 1.

Fl. dolce

Str., Harp *molto p; sost.*

Cell 1: D G^b A^b Cell 2: C C[#] D[#] [E G A] contraction of Cell 1

pp variation of cell 1

Pitches from *P₀*

sui pie - di leg - ge - ri co - min - cia - ro - no,

P₀ *pp*

Cel. *Picc.* *Vla.* *Hn.* *Ob.*

dolce, ma in rilievo

expansion of cell 1

expansion of cell 1

inversion of cell 1

transposition of cell 2

contraction of cell 1

transposition of cell 1

371

P₀

movendo pochiss
 Pitches from cell 1 Pitches from *P₀*

spen - sie - ra - te, a gi - ra - re in - tor - no al -

ppp Str. pizz.

Ri arco

pp e appena cresc.

variation of cell 1 contraction of cell 1 transposition of cell 2. transposition of cell 1.

a tempo

l'a - ra

ppp

ppp (giocando) Fl.

ppp senza colore

Ce. Cls. Picc.

Use only the 1st triad of *P₀* (C major triad)...

ppp; quasi parlato

sul - la te - ne - ra er - ba ap - pe - na na - ta.

Cl. *senitone* = a reminder of cell 2.

ppp; ma sonoro

pppp

quasi trillo

Trpt., Hn.

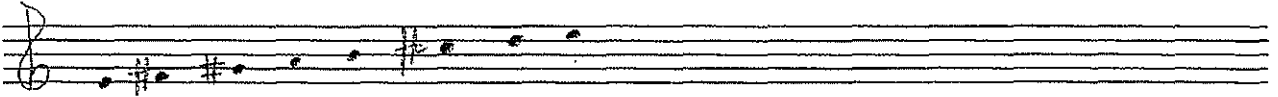
Full shone the moon, when by the altar they stopped. And the Cretian woman, with music, upon light feet, began carefree to go about the altar, upon the tender young grass.

Tall chords and additive harmonies, along with ostinatos, show ~~panchromatic~~ technique. Motivic ideas contribute to the organization of this selection.

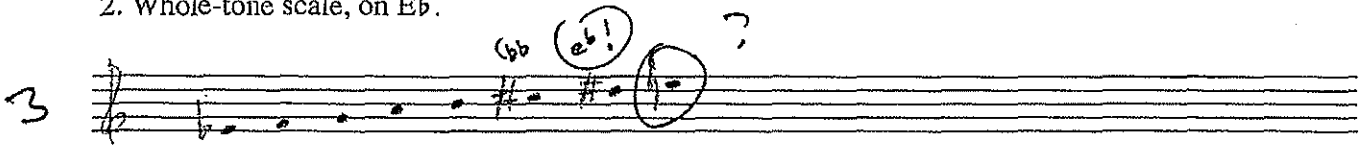
The composer uses chromatic planting of inverted chords. Although the lona pedal tones emphasize e dorian the planina causes the piece to seem pandiatonic.

II. Write the following scales/modes, on the "tonics" indicated. You may use any clef(s) and key signatures you wish.

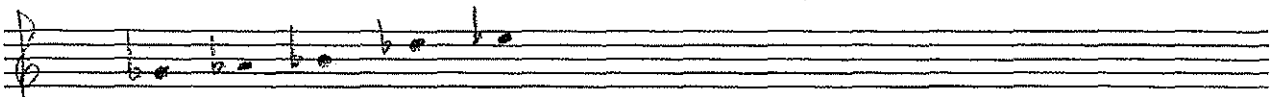
1. Mixolydian mode, on E.



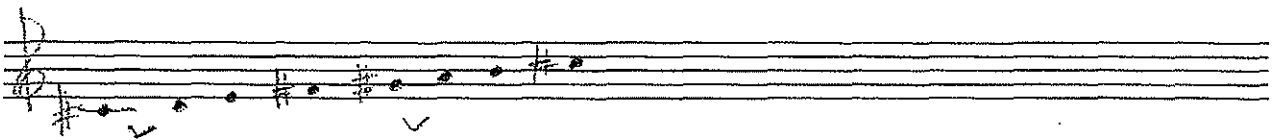
2. Whole-tone scale, on Eb.



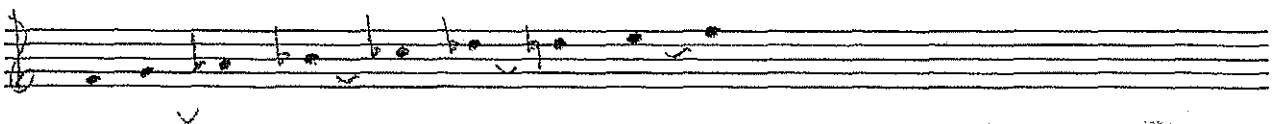
3. Pentatonic, do = Gb.



4. Phrygian mode, on C#. $\hat{2} \hat{1} \hat{4} \hat{3} \hat{2} \hat{1} \hat{5} \hat{4}$



5. Octatonic, on F. whole step mode



Happy Holidays!
you too :-)

Theory V: Twentieth-Century Techniques Final Exam

85
~~XXXXXXXXXX~~
name

I. Identify the principal techniques used in the following five excerpts. You should include detailed analyses of a few chords, etc., to back your generalizations.

1. *Lent. pesante* ♩ = 112 (trumpet) *B* *E^b*

(organ) *f sec (strident, cuivré)*

fortissimo

in unison writing; planing

marcato e sostenuto

B/c E/A etc. → *A*

5

Polychords and unusual dissonant tritone relationships within each bar contribute to this excerpt's polytonality what keys are established?

2. *(WW)* *m1 m2 m2' m2' m2' m2'* *m3 m3'*

(strings) *pp* *rhythmic ostinato* *planing*

F A C E F

D^b9 add^b 17 *E^b9 (full chords)* *D^b9 add^b* *B^bMA9 add^b* *D^b9 add^b* *G^bMA9*

3. Bonus! Name the piece. (Double Bonus!! Name the children.)

sequence unit

CHILDREN:

There's a sad, sort of clang-ing From the

secondary or additive harmony (quartal)

trypad p

ostinato accompaniment

sequence

sequence

clock in the hall And the bells in the stee-ple too, And up in the nurs-ry an ab-

In ostinato accompaniment, secundal and quartal harmony, additive harmony and tall chords are evidence of pandiatonicism.

4. Also, calculate interval vectors for the first two chords.

m2

m2'

m2'

0 3 4 7 10

1 3 4 7 10

1 3 4 7 9 11

2 2 5 2 2 2

3 1 3 4 5

1 4 6 8

3 5 7 2

1 4 2 4 2 2

No Serialism. A rhythmic motive helps create almost an ostinato in the accompaniment.

dolce

Love bade me wel-come;

m1

m1' etc ->

pp

e dorian:

IV^b vii^b VI^b etc.

To: Simon Bott, Chair, Core Committee
From: Sarah Fishman, Associate Dean, CLASS
RE: Core Math Reasoning for Music Theory
Date: 15 April 2014

I am writing on behalf of the Dean to express our strong support of this appeal to the Coordinating Board on behalf of including Music 2210, Theory III, and Music 2214, Techniques of Music since 1900, in the Core Math Reasoning Component Area Option.

The application has been revised to express more clearly the mathematical reasoning, empirical and quantitative skills that students will learn in these two courses.

I might point out that the civilization that developed the concept of the Liberal Arts, Ancient Greece, treated music as a mathematical discipline because it included relationships, ratios and proportions. According to Plato, *The Republic*, the Liberal Arts included the Trivium (grammar, logic, rhetoric) taught first, and the Quadrivium (arithmetic, geometry, music astronomy).

Music, the science of sound and harmony, thus was on placed on the secondary level with arithmetic, geometry and astronomy. Furthermore, the Greeks noted a number of mathematical properties of harmony. For example, harmony only results when combining one note other notes whose frequencies are integer multiples of the first note. The intensity of the base frequency and its overtones, which are integer multiples of the first note, also define the tone of a given instrument, which is why a violin and a trumpet playing the same note do not sound the same. Intervals represent another critical and intensely mathematical element of music.

Finally, on a practical note, if you will excuse the pun, we had reduced the number of courses in the Component Area Option Math Reasoning from 16 possible courses in the pre-2014 Core to 11 courses in our application. With Phil 1321, Logic, restored, we now have 9 course options, an improvement still well below the options and seats we previously offered at the University of Houston. Approximately 190 students normally enroll in Music 2210 and Music 22014 over an academic year, based on a rolling 5 year average.

In other words, this along with the removal of the musical ensemble options from the Creative Arts component of the Core will negatively impact our ability successfully to implement the "UH in Four" initiative we are planning to inaugurate for incoming first year students this Fall. We are having to consider the possibility that we will only be able to offer a "UH in Four" contract to incoming Music majors who have already completed 9 AP credits toward the Core.