COURSE TITLE:

MUSIC THEORY AND TECHNOLOGY

LENGTH:

ONE YEAR
GRADES 10-12

SCHOOL:

RUTHERFORD HIGH SCHOOL
RUTHERFORD, NEW JERSEY

DATE:

SPRING 2015

Rutherford High School
Rutherford, NJ
Fine, Practical & Performing Arts
MUSIC THEORY AND TECHNOLOGY
Spring 2015

1. INTRODUCTION/OVERVIEW/PHILOSOPHY

MUSIC THEORY AND TECHNOLOGY...(prerequisite: any of the following: CONCERT BAND, WIND ENSEMBLE, CONCERT CHOIR, OR ROCK ENSEMBLE) Students use computers and MIDI keyboards to study and explore music theory, sequencing, music notation, and sound creation. The fundamentals of music are covered beginning with scales, key signatures, intervals, and rhythmic patterns. Students progress through basic chords, voice leading, and harmony to writing and digitally recording their small works. Part of the course is devoted to scales and harmonies used in contemporary rock and jazz as well as developing the knowledge and skills necessary for the art of sequencing. Critical listening skills and inner hearing of written music through computer-assisted exercises will be stressed throughout the course.

2. OBJECTIVES

A. NEW JERSEY CORE CURRICULUM CONTENT STANDARDS NJCCCS

For a complete copy of the NJ Core Curriculum Content Standards for Visual and Performing Arts, Technology, and 21st Century Life and Careers, please visit the following website:

http://www.state.nj.us/education/cccs/

VISUAL AND PERFORMING ARTS

STANDARD 1.1

THE CREATIVE PROCESS: All students will demonstrate an understanding of the elements and principles that govern the creation of works of art in dance, music, theatre, and visual art.

STANDARD 1.2

HISTORY OF THE ARTS AND CULTURE: All students will understand the role, development, and influence of the arts throughout history and across cultures.

STANDARD 1.3

PERFORMING: All students will synthesize skills, media, methods, and technologies that are appropriate to creating, performing, and/or presenting works of art in dance, music, theatre, and visual art.

STANDARD 1.4

AESTHETIC RESPONSES & CRITIQUE METHODOLOGIES: All students will demonstrate and apply an understanding of arts philosophies, judgment, and analysis to works of art in dance, music, theatre, and visual art.

TECHNOLOGY

STANDARD 8.1

TECHNOLOGY: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively to create and communicate knowledge

21st CENTURY LIFE and CAREERS

STANDARD 9.2

CAREER AWARENESS, EXPLORATION, AND PREPARATION: Review career goals and determine steps necessary for attainment

CAREER READY PRACTICES

CRP1: Act as a responsible and contributing student
CRP2: Apply appropriate academic and technical skills
CRP3: Attend to personal health and well-being

B.COURSE OUTLINE

The student will be able to:

1. Make personal aesthetic judgments based on musical knowledge with an emphasis on the integration of computer-based music technology and sound synthesis.

2. Evaluate and respond to musical works or performances by drawing on aesthetic concepts.

3. Listen perceptively to music, distinguishing such elements as pitch, melody, harmony, rhythm, timbre, dynamics, and form as these relate to the incorporation of computer-aided music instruction and sequencing.

4. Demonstrate an awareness of music as a means of communication and expression.

5. Be able to discuss the techniques and media used to convey expressive ideas in a musical work.

6. Demonstrate an awareness of the music of varied styles and historical periods, as well as the contributions by women and minorities.

8. Demonstrate familiarity with traditional notation.

9. Demonstrate familiarity with sequencing, mixing, and audio production through the use of music hardware and software.

10. Be aware of, appreciate, and develop respect for creators, performers, and various styles of music.

11. Identify and describe, using appropriate terminology, various musical forms, materials, and methods of composition from different historical periods and world cultures.

3. PROFICIENCY LEVELS

This is an elective course open to students in grades 10-12.

4. METHODS OF ASSESSMENT

- **Student Assessment**

  The teacher will provide a variety of assessments:

  - Projects/reports
  - Individual critiques
  - Group critiques
  - Quizzes/tests
  - Group or individual presentations
  - Student listening
  - Teacher observation

- **Curriculum/Teacher Assessment**

  There will be an ongoing self and department assessment to determine the effectiveness of all aspects of the music program.

  - Teacher/departmental meetings
  - Teacher observations
  - Completed projects
  - Self evaluation/PDP
  - Supervisor evaluations
  - Suggestions for changes to supervisor

5. GROUPING

This course has a prerequisite of one year either of Concert Band, Wind Ensemble, Concert Choir, or Rock Ensemble.

6. ARTICULATION/SCOPE AND SEQUENCE/TIME FRAME

Music Theory and Technology is a full-year elective course.

7. RESOURCES

- Text: *Tonal Harmony,* McGraw Hill, Stefan Kostka, Dorothy Payne, 2006.

- Individual computers; music software, such as Garage Band, Smart Music, Sibelius, Pro Tools; MIDI interface and controller keyboard, sound module, and interactive audio monitoring system with earphones and microphone.

- Teacher computer station with an assortment of MIDI modules, mixing console, and other hardware.

- Periodicals
  - *Billboard*
  - *Guitar Player*
  - *Guitar World*
  - *Keyboard*

- Resource Books
    - *Elementary Harmony Text*
    - *MENC: "Exploring Careers in Music"*
    - *The Norton Scores*
    - *Norton American Music*
    - *Various Equipment Manuals*
    - *Software Manuals*
    - *Real Books*

- Websites
    - *Musictheory.net*
    - *Gmajor music theory*
    - *VT Music Dictionary*
    - *Various College Board approved Music Theory websites*

- Video Recordings
    - Leonard Bernstein's "Young People's Concerts"
    - Winton Marsalis' "Young People on Music"
    - MENC - "Exploring Careers in Music"

- Audio Recordings
    - Various recordings representing the major stylistic periods in western classical music.
    - Various recordings representing the jazz and rock idioms

8. METHODOLOGIES

Chronology of what is to be taught:

1. Elements of Music Theory:

- Pitch recognition
- Duration of pitch
- Intensity
- Tone color (i.e., identification of instruments)
- Scales
- Intervals
- Triads
- Harmonic progression
- Extended harmonies
- Voice leading

2. Music Terminology:

- Tempo markings
- Dynamic markings
- Styles of music
- Improvisation
- Form

3. Computer and Electronics Equipment Terminology:

- Panning
- Equalizing
- Balancing
- Sequencing
- Quantization

4. Listening Skills:

- Baroque
- Classical
- Romantic
- 20^{th} Century
- Jazz
- Rock

5. Form:

- Twelve-bar blues
- Improvisation
- Free form
- Asymmetrical meters
- Rondo
- Theme and variations
- Sonata allegro

6. Recording Techniques:

- Multi-tracking
- Sequencing
- Mixing
- Effects

7. Career Infusion:

- Education
- Performance
- Engineering
- Music business/management
- Sales
- Technical support

9. SUGGESTED ACTIVITIES

- Work at sound board
- Work on computers
- Written composing
- Group critique

10. DIFFERENTIATING INSTRUCTION FOR STUDENTS WITH SPECIAL NEEDS

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways as they celebrate students' prior knowledge. By providing appropriately challenging learning, teachers can maximize success for all students.

Examples of Strategies and Practices that Support:

Students with Disabilities

- Use of visual and multi-sensory formats
- Use of assisted technology
- Use of prompts
- Modification of content and student products
- Testing accommodations
- Authentic assessments

Gifted & Talented Students

- Adjusting the pace of lessons
- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher-order thinking skills

- Interest-based content
- Student-driven
- Real-world problems and scenarios

English Language Learners

- Pre-teaching of vocabulary and concepts
- Visual learning, including graphic organizers
- Use of cognates to increase comprehension
- Teacher modeling
- Pairing students with beginning English language skills with students who have more advanced English language skills
- Scaffolding
  - word walls
  - sentence frames
  - think-pair-share
  - cooperative learning groups
  - teacher think-alouds

11. INTERDISCIPLINARY CONNECTIONS

- World History
- Art History
- Math
- Humanities
- Language Arts
- Music for video
- Appropriate and competent use of relevant websites and digital software and equipment 8.1.12
- Recording student performances/projects using appropriate audio, video, and /or photographic means to facilitate classroom critique of student growth and progress 8.1.12
- Presentation and exploration of related career possibilities 9.2.12
- Working in teams to create group based learning activities and projects CRP1
- Application of skills learned in class to project based activities CRP2
- Emphasis on importance of proper nutrition for student learning CRP3

12. PROFESSIONAL DEVELOPMENT

As per the PDP/100 hours statement: the teacher will continue to improve expertise through participation in a variety of professional development opportunities.

13. CURRICULUM MAP – MUSIC THEORY AND TECHNOLOGY

Class	September	October	November	December	January
Music Theory & Technology	• Brief review of note names on treble and bass clef staves. • Introduction to Major Key signatures. • Introduction to meter and rhythm. • Students will write major and chromatic scales in different clefs and in different keys using various meters and rhythmic patterns. • Introduction to computer based notation programs. • Introduction to minor key signatures and all three forms of the minor scale. • Introduction to	• Introduction to aural skills using previous scales. • Introduction to intervals. • Students will be played various scales from the previous weeks and asked to identify which scale they hear. • Students will also play scales for the class to identify. • Students will use Practica Musica to aurally identify major, minor, diminished, augmented, and perfect intervals. • Students will be given various intervals to	• Introduction to Roman numeral use to identify chords occurring in all three forms of a minor key. • Introduction to correct doubling of triads in root position. • Introduction to correct pitch range for common practice period four part writing. • Introduction to form • Students will visually identify triads in all three minor keys using Roman numerals. • Students will, given a key	• Introduction to part writing rules for triads in inversion. • Introduction to non harmonic tones. • Introduction to analysis. • Introduction to commonly used chord progressions. • Students will write brief chord progressions using triads in inversion, seventh chords, non harmonic tones, and various cadences. • Students will analyze short excerpts from	• Students will arrange provided works using Band in a Box for the accompaniment part. • Students will arrange provided works using Band in a Box for the keyboard part drum part, and bass part.

	modes. • Introduction to whole tone and pentatonic scales. • Students will write various modal, minor and major scales in various keys and clefs.	identify visually. • Review of aural skills. • Introduction to major, minor and diminished chords occurring in a major key. • Introduction to Roman numeral use to identify chords in a major key. • Students will visually identify triads in all major keys using Roman numerals. • Students will use Practica Musica to aurally identify major, minor and diminished chords.	signature, and bass note, fill in the remaining voices using correct doubling. • Students will aurally and visually identify correct and incorrect doubling. • Students will identify various musical forms and motives in musical examples. • Introduction to part writing rules for triads in root position with special attention to tonic, dominant, and subdominant relationships. • Introduction to seventh chords. • Introduction to Cadences. • Students will connect chords in root position	Bach chorales including, key signature, Roman numerals, non harmonic tones, and cadences. • Introduction to transposition. • Introduction to brass instrument range. • Introduction to phrasing especially as it relates to wind instruments. • Introduction to arranging. • Students will be given various pieces of winter music to arrange for brass quintet (first given the first trumpet and tuba lines, progressing to just the first trumpet line). • Students will	

			given a key signature and bass line. • Students will write cadences (perfect authentic, imperfect authentic, plagal, and half) in various major and minor keys. • Students will aurally identify simple chord progressions in root position and various cadences.	use bass lines to imply appropriate harmony. • Student works will be performed in class preferably using a live brass ensemble or with the use of electronic instruments. • Students will be given figured bass lines to realize using appropriate part writing rules.	

Class	February	March	April	May	June
Music Theory & Technology	• Students will arrange provided works using Band in a Box for the keyboard part, drum part, and bass part. • Students will arrange provided works using Band in a Box for the keyboard part and bass part.	• Students will arrange provided works using Band in a Box for the keyboard part and bass part. • Students will arrange provided works using Band in a Box for the keyboard part.	• Students will arrange provided works using Band in a Box for the keyboard part. • Students will arrange a provided work.	• Students will arrange a provided work. • Students will compose a work of their choice. • Students will review for the final exam.	• Students will compose a work of their choice. • Students will review for the final exam. • Final exam