ROSE STATE COLLEGE

Division Course Syllabus

Division: Humanities
Course Prefix and Number: MUS 2342
Course Title: Computers and Music II
Semester and Year Submitted: Spring 2016
Credit Hours: 2-1-2
Prepared by: Dr. David Gedosh

Hours Per Week: Class 2, Lab 1

Course Description (as it appears in Catalog)
This course is designed for students who desire to continue to develop a practical understanding of the technical and creative elements of music production using current computer hardware and software for today’s music industry. Through lectures, demonstrations, and practical exercises and assignments, this course offers students a more indepth study of music technology and its current use. Topics include synthesis techniques, MIDI sequencing and editing, digital signal processing, and advanced mixing and automation techniques. This course is taught in the computer lab using Propellerhead’s Reason 7, and Logic X. Students continue to develop a portfolio of creative work. Prerequisite: MUS 2312

Prerequisites
MUS 2312

Text(s):
Title: Apple Pro Training Series: Logic X: Professional Music Prod.
Author: Nahmani
Publisher: Peachpit Press
Copyright Date: 2013
ISBN #: 9780321967596

Supplemental Materials: (Other books, audio visual aids, etc.)

ProTools 101 (w/CD) by Cook
Publisher: Coute Copyright 2012
ISBN: 978113776550

Computer Music Tutorial by Roads
Publisher: MIT
ISBN: 9780262680820

Protools 110 v.9(610665004000) by Digdesign

Required: External HDD or Flash Drive (max GB), Headphones with 3.5mm connector and 1/4 inch adapter
Outline for Remainder of Syllabus:

Rationale: This course is a continuation of the Computers and Music course series, and is designed for students who desire a more indepth study of the use of music technology in today's music industry. This course is taught using Reason 7 and Logic X software, and includes the integration of the two using Rewire applications. It continues to develop students' understanding of MIDI sequencing and editing, songwriting skills, and music production skills while introducing them to the more advanced topic of synthesis techniques and an indepth look at software synthesers and other software instruments. Successful completion of Computers and Music 1 is necessary for enrollment in this course. For those student interested in completing the Music Engineering and Industry program this course should be taken concurrently with Audio Engineering 2.

Expected Outcomes: Upon completion of this course, through lectures, demonstration, practical exercises, and exams, students will be able to:

1) Demonstrate an intermediate understanding of MIDI systems, and MIDI sequencing and editing
2) Demonstrate an intermediate understanding of digital audio workstations, Logic X and Reason 7, and related music production computer hardware and software
3) Demonstrate a basic understanding of common synthesis techniques and software synthesers
4) Demonstrate a proficient understanding of the integration of rewire applications and their use in music production
5) Demonstrate an intermediate understanding of digital signal processing
6) Demonstrate an intermediate understanding of songwriting, rhythm, form, instrumentation, melody, and harmony
7) Continue to develop skills for critical listening and analysis of music production techniques
8) Effectively communicate their knowledge of the artistic and technical elements of music production
9) Continue to develop a portfolio of creative work

Methods of Instruction: This course includes a high degree practical hands-on demonstrations, exercises, and practical projects, supported by technical discussion of theoretical information. The following methods of instruction are to be used:

Reading assignments from text
Reading assignments and quizzes from handouts - distributed online through D2L
Online videos and articles pertaining to specific topics
Class lectures and theoretical and artistic discussion
Class demonstration and practical exercises
Written quizzes
Software-based assignments
Practical projects
Assessment (Including Critical Thinking measurements): Assessment of students' understanding is varied across written quizzes and tests, practical in-class exercises, practical software assignments, and practical projects, as well as class participation and the ability to clearly articulate the technical and artistic elements of the course material.

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<th>Component</th>
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<tr>
<td>Practical Assignments</td>
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<td>Reading Assignments</td>
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<td>Quizzes</td>
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<td>Midterm</td>
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<td>Final</td>
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<tr>
<td>Class Participation</td>
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Students' work will receive a numerical grade in the form of points received out of total points possible.

Students' final grade will be calculated by converting the total points received into a percentage as follows:

A=100-90, B=89.9-80, C=79.9-70, D=69.9-60, F=59.9-0

Learning Objectives: The following section defines the major units of the course along with learning objectives for that section. Supplemental materials, including media files, reading assignments and quizzes, and tests can be found in the supplemental materials folder accompanying this course syllabus.

Unit I Introduction to Propellerhead's Reason 7 (Outcomes 1, 2)

On practical assignments the student will be expected to demonstrate the following:

1) Basic navigation in Reason
2) Session organization in Reason
3) Basic MIDI sequencing and editing in Reason

Unit II Sound Modules in Propellerhead's Reason 7 (Outcomes 1, 2)

On practical assignments the student will be expected to demonstrate the following:

1) Overview of the sound modules and effects modules in Reason
2) Patching and routing - the back panel
3) Intermediate MIDI sequencing and editing in Reason

Unit III Introduction to Synthesis Techniques (Outcomes 1, 2, 3)

The technical discussion of synthesis techniques should be coordinated with the different synthesis modules in Reason as part of an indepth look at the Subtractor and Thor modules.

On written and practical assignments the student will be expected to demonstrate the following:
1) Subtractive and Additive Synthesis
2) Amplitude Modulation and Frequency Modulation
3) Oscillators: tone generators, noise generators, low frequency oscillators, modulation
4) Advanced patching, routing, and automation

Unit IV Synthesis modules in Logic X, and Rewire applications; rewiring Reason 7 in Logic X, (Outcomes 1, 2, 3, 4, 5, 6, 7, 8, 9)

On practical assignments the student will be expected to demonstrate the following:

1) Rewiring Reason 7 in Logic X; project and file organization, routing and patching, project settings
2) Synthesis modules, software samplers, and related software instruments in Logic X
3) Advanced MIDI sequencing techniques, sequencing in rewire mode; Reason 7 and Logic X
4) Advanced automation, mixing techniques, and digital signal processing