GTRB 2415: Computer Drafting for Guitar

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 3
Lab Hours/Week: *.*
OJT Hours/Week: *.*

Prerequisites:
This course requires any of these four prerequisites
    Pre-Math Level 3
    Math Level 2
    Math Level 1
    Algebra College Level

Corequisites: GTRB 2420 and GTRB 2420
MnTC Goals: None

This course introduces Rhino 4.0 design software where students will design the outline for their instrument body, headstock, bridge and other design elements. Necessary drawings for templates and molds will also be created for use in GTRB 2420 using Rhino drafting software. (Prerequisites: Pre-Math Level 3 Placement Level; Concurrent enrollment in GTRB 2420) (3 credits: 3 lecture/0 lab)

B. COURSE EFFECTIVE DATES: 06/16/2009 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Learn Rhinoceros Drafting software
2. Use Rhino to design guitars
3. Rhino drawings will be used to operate CNC for CNC for guitar class

D. LEARNING OUTCOMES (General)

1. Demonstrate professional conduct
2. Demonstrate focused work ethic
3. Demonstrate reliability
4. Utilize the features of the rhino interface
5. Create basic graphic objects
6. Model using coordinate input and object snaps
7. Modify curves and surfaces using edit commands
8. Use control point editing to modify curves and surfaces
9. Create guitar outline using two or more methods
10. Design guitar blueprint in 2D and 3D
11. Design molds (bending, outside, cauls)
12. Design routing templates
13. Design 3D guitar bridge
14. Design 3D guitar neck
15. Design other 3D parts
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted