

# Minnesota State College Southeast

## 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 either of these prerequisite categories

1. All of these four

GTRB 1440 - Acoustic Guitar Construction Lecture

GTRB 1445 - Acoustic Guitar Construction Lab

GTRB 1450 - Introduction to Finishing

GTRB 1455 - Guitar Repairs

Or

2. A score of 45 on test Accuplacer Elementary Algebra

Corequisites: GTRB 2425

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: GTRB 1440, GTRB 1445, GTRB 1450; 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 3Dguitar 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