

Minnesota State College Southeast

VLNR 1373: Violin Construction Lab I

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: 8

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

In this course the student will work on building a violin. (Concurrent enrollment in VLNR372) (4 credits: 0 lecture/4 lab)

B. COURSE EFFECTIVE DATES: 03/19/2008 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Select body shape
2. Select top wood
3. Select bracing style
4. Select scale length
5. Select back wood
6. Select neck wood
7. Select neck reinforcement
8. Select purfling/binding
9. Select fittings
10. Select linings
11. Select soundhole design
12. Identify necessary tools
13. Identify necessary templates
14. Describe mold construction steps
15. Identify block materials
16. Describe block construction steps
17. Describe rib thicknessing technique
18. Describe rib bending technique
19. Describe necessary clamping cauls
20. Describe rib/block gluing methods
21. Describe rib structure flattening
22. Identify top joining techniques
23. Describe back joining techniques
24. Identify plate flattening techniques
25. Identify plate edge thicknessing techniques
26. Describe arching variations
27. Identify rough carving technique
28. Identify rough smoothing technique
29. Identify arch finalizing technique
30. Describe soundhole cutting
31. Describe margins
32. Describe plate pinning technique
33. Describe brace fitting steps
34. Describe brace shape/dimensions
35. Record top thickness measurements
36. Record back thickness measurements
37. Record instrument wood descriptions
38. Describe plate to rib structure gluing technique
39. Identify construction steps
40. Complete instrument construction journal
41. Make body template
42. Make neck template
43. Make headstock template
44. Make soundhole template

45. Cut mold material
46. Shape mold
47. Prepare block wood
48. Shape blocks
49. Spot glue blocks
50. Make clamping cauls
51. Thickness ribs
52. Scrape ribs
53. Cut rib height
54. Bend ribs
55. Glue ribs to blocks
56. Flatten rib structure
57. Flatten individual top plates
58. Join top plates
59. Flatten joined top plates
60. Flatten individual back plates
61. Join back plates
62. Flatten joined back plates
63. Trace rib and button outline on back
64. Trace rib outline on top
65. Cut back outline
66. Cut top outline
67. Roughcut top arch
68. Roughcut back arch
69. Mark desired top edge thickness
70. Mark desired back edge thickness
71. Route top edge thickness
72. Route back edge thickness
73. Spot glue plates
74. Drill locating pin holes
75. Prepare purfling
76. Cut top purfling channel
77. Cut back purfling channel
78. Install top purfling
79. Install back purfling
80. Make workboard
81. Plane top arch
82. Plane back arch
83. Prepare scraper
84. Cut top recurve
85. Cut back recurve
86. Scrape top arch
87. Scrape back arch
88. Make graduation templates

89. Drill top graduation holes
90. Drill back graduation holes
91. Roughcut top graduation
92. Roughcut back graduation
93. Plane top graduation
94. Plane back graduation
95. Scrape top graduation
96. Scrape back graduation
97. Locate soundholes
98. Roughcut soundholes
99. Shape soundholes
- 10 Mark brace location
- 0.
- 10 Cut brace wood
- 1.
- 10 Roughcut treble brace fit
- 2.
- 10 Roughcut bass brace fit
- 3.
- 10 Plane treble brace fit
- 4.
- 10 Scrape treble brace fit
- 5.
- 10 Plane bass brace fit
- 6.
- 10 Scrape bass brace fit
- 7.
- 10 Glue braces
- 8.
- 10 Shape braces
- 9.
- 11 Make linings
- 0.
- 11 Install linings
- 1.
- 11 Make locating pins
- 2.
- 11 Install locating pins
- 3.
- 11 Check plates/rib structure fit
- 4.
- 11 Glue top plate to rib structure
- 5.
- 11 Glue back plate to rib structure
- 6.
- 11 Complete assigned clean up
- 7.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted