

## ART 3390 - Sculpture: Textiles + CNC

# RmCAD

Credits: 3

In this course, students will learn how to use sewing machines and Computer Numeric Control (CNC) equipment. Students will learn methods for creating three-dimensional forms with textiles, and how to design for and run CNC tools and other vector-based digital fabrication equipment. Students will research sculptors who use similar fabrication methods and share their findings with the class. Upon successful completion of this course, students will fabricate a personal sculpture that incorporates components made using both sewing techniques and CNC cutting.

Prerequisites: ART 1190 Sculpture: Cast + Assemble or Chair Approval

Notes: (Formerly FAS 3350 Sculpture III, FAS 4991 Sculpture III: Directed Studies, FAS 4150 Sculpture III: Directed Studies, ART 3270 Sculpture III) Campus Only

COURSE LEARNING OUTCOMES		Exceeding	Meeting	Developing	Not meeting	Program Outcomes	Institutional Outcomes
Textile 3D Forms	Operate a sewing machine to create a 3D form with textiles.	Student can sew complex forms with the sewing machine.	Student can sew general forms with the sewing machine.	Student is somewhat able to sew forms with the sewing machine. There are quality issues with the stitching and textile handling.	Student is unable to sew forms with the sewing machine.	Process, Practice	Design Competency
CNC Tool Digital Paths	Design digital paths for a CNC tool.	Student is proficient at making complex digital paths for a CNC tool.	Student is capable of making digital paths for a CNC tool.	Student is somewhat able to make digital paths for a CNC machine. There are problems with the paths that would create issues for a CNC tool.	Student is unable to design digital paths for a CNC tool.	Process, Practice	Design Competency
CNC Equipment	Operate CNC equipment.	Student is proficient at operating CNC equipment.	Student is able to operate CNC equipment.	Student is somewhat able to operate CNC equipment. The components made show evidence of equipment errors or misunderstanding of the processes.	Student is unable to operate CNC equipment.	Process, Practice	Design Competency
Sculpture Fabrication	Fabricate a sculpture that includes textiles and components created from CNC equipment.	Student can fabricate a sculpture that includes textiles and components created from CNC equipment. The completed work is exceptionally well-designed and crafted.	Student is able to fabricate a sculpture that includes textiles and components created from CNC equipment. There are only minor design or technical issues that could be improved on.	Student is somewhat able to fabricate a sculpture that includes textiles and components created from CNC equipment. There are unresolved design and/or technical issues with the work.	Student is unable to fabricate a sculpture that includes textiles and components created from CNC equipment.	Process, Practice	Design Competency

Course Learning Outcome Rubrics include the criteria for course learning outcomes, the descriptors, and definitions identifying the characteristics tied with each criterion, and a rating scale for performance levels that identifies learners' levels of proficiency within each criterion. Course Learning Outcome Rubrics include program and institutional outcome alignment. Rubrics for Art Education and Interior Design also include programmatic accreditation alignment. Course Learning Outcome Rubrics are utilized by the department in activities related to course-level learning assessment.