

**Course discipline/number/title: COMP/ART 1337: Art and Code****A. CATALOG DESCRIPTION**

1. **Credits:** 3
2. **Hours/Week:** 1 lecture, 4 lab
3. **Prerequisites (Course discipline/number):** None
4. **Other requirements:** None
5. **MnTC Goals (if any):** Goal 6/Humanities-the Arts, Literature and Philosophy

**B. COURSE DESCRIPTION:** This course introduces concepts in design and art by using open-source graphic software libraries meant to teach programming to visual artists and new computer programmers. This course explores the elements of art and principles of design by using the basic concepts of computer programming, such as variables, control structures, arrays, loops, functions, and objects. There will be an emphasis on procedural approaches that incorporate simple chance, randomness, or probability into designs. There will also be discussion of the current state of generative art and art historical precedents for working procedurally. This course is geared toward students with no programming experience.

**C. DATE LAST REVISED (Month, year):** February, 2024

**D. OUTLINE OF MAJOR CONTENT AREAS:**

1. Elements of Art and the Principles of Design
2. Color Theory
3. Basic Computer Programming Concepts
4. Digital Imaging Concepts including Files and File Systems, Image Filetypes, Resolution, Color Models, Binary and Hexadecimal Numbers, Printing and Output.
5. Contemporary Artists and Designers Using Generative Tools
6. Art Historical Precedents for Procedural Image Making

**E. LEARNING OUTCOMES (GENERAL):** The student will be able to:

1. Produce a series of code-based artworks that implement the principles of design and elements of art to works of art.
2. Implement basic computer programming concepts to create graphic images using software tools created for visual artists and new programmers.
3. Demonstrate the vital role and value the fine arts have on the development of culture through research into contemporary and historical procedural image making.
4. Evaluate the effectiveness of personal artwork and the work of others through critique.

**F. LEARNING OUTCOMES (MNTC):**

Goal 6/The Humanities-the Arts, Literature, and Philosophy: The student will be able to:

1. Demonstrate awareness of the scope and variety of works in the arts and humanities.
2. Respond critically to works in the arts and humanities.
3. Articulate an informed personal reaction to works in the arts and humanities.

**G. METHODS FOR EVALUATION OF STUDENT LEARNING:** Methods may include but are not limited to:

1. Projects
2. Critiques and Presentations
3. Written Assignments
4. Group Work

**H. RCTC CORE OUTCOME(S).** This course contributes to meeting the following RCTC Core Outcome(s):  
**Critical Thinking.** Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

**I. SPECIAL INFORMATION (if any):** None

