

ART 104 : CREATIVE APPLICATIONS OF MATHEMATICS

Transcript title

Creative Applications of Math

Credits

4

Grading mode

Standard letter grades

Total contact hours

40

Lecture hours

40

Prerequisites

MTH 015 (or higher) or minimum placement Math Level 7.

Course Description

Explores real-world applications of mathematical concepts in art and design. Includes measurements, geometry, scaling, statistics and budgeting through art and design projects. Emphasize skills needed to plan, build, price, and communicate creative ideas with accuracy and confidence.

Course learning outcomes

1. Apply geometry and trigonometry to solve art and design problems.
2. Convert units of measure used in digital art.
3. Use measurements, ratios, scaling, and coordinate systems to develop visually compelling and mathematically accurate artwork.
4. Create visualizations of data to communicate clearly and concisely with a target audience.
5. Calculate costs, pricing, and financial metrics for art and design production.

Content outline

1. Geometry and trigonometry in art and design
2. Ratios, proportions and scaling
3. Units of measure: pixels, picas, points, metric and U.S. customary
4. Coordinate systems and grids
5. Graphs, charts and color models
6. Time calculations, frames and motion paths
7. Pricing, markup and taxes

Required materials

Students will need to provide specific materials used in this course; please see the syllabus for a detailed list.

General education/Related instruction lists

- Computation