

**Course Syllabus**  
**CGS 2032 MATH, ART & COMPUTING**  
**Section 5560, Fall 2008**

1. Catalog Description (3 credits):  
Introduction to interdisciplinary computer science topics. logic, discrete structures, algorithms and automata. Exploration of topics relating mathematics and computing to art, music and nature.
2. Pre-requisites and Co-requisites  
Pre-requisites: MAC 1147 Precalculus: Algebra and Trigonometry, or equivalent
3. Course Objectives:  
At the end of the semester, students are expected to be able to write/execute programs, and create visual art reflects math principles and theories using processing.
4. Instructor: Rong Zhang
  - Office location: CSE E526
  - Telephone: 392-9685
  - E-mail address: rzhang@cise.ufl.edu
  - Office hours: Thursday 1:00pm – 3:00pm or by appointment
5. Teaching Assistant  
None
6. Meeting Times:  
MWF period 3 (9:35am – 10:25am)
7. Meeting Location: UST 0105 on Mondays and Fridays, Weil 412 on Wednesdays
8. Textbooks and Software  
Required textbook: Processing: Creative Coding and Computational Art  
ISBN: 978-1-59059-617-3  
<http://www.amazon.com/Processing-Creative-Coding-Computational-Foundation/dp/159059617X>  
  
Software: the Processing Language and Environment – free software that can be downloaded from [www.processing.org](http://www.processing.org)
9. Course Outline -  
Following are the tentative course outline. There might be a slight shift in topics depending on the backgrounds or interests of the students
  - Introduction to computer and programming languages
  - Basic Geometry: coordinate systems, translation, scale, and rotation, etc.
  - Vector: representation and computation
  - Color space
  - Perspective, vanishing point
  - Shape representation and drawing

- Propositional Logic
- Iteration and recursion
- Sequences and series
- Animation and interactive I/O
- Non-Euclidean geometry
- Fractals
- Symmetry, Patterns
- Noise and random numbers
- \* Advanced Material, which may be adjusted according to time and interests of students

10. Attendance and Expectations –

Class attendance is required. If for some reason you have to miss a class, you are responsible for getting class notes from a classmate. Make sure to email your completed work to the instructor or TAs before class to avoid a penalty if an assignment is due. Cell phones should be turned off or set to vibrate.

11. Homework Policies –

You may discuss assignments with other students. But you must write the program by yourself. If one program is proven to be copied from another student, 0 point will be given to both students.

Late assignments will be accepted with a penalty of deduction of 20% of the maximum point value every 12 hours, for up to 2 days.

12. Grading Scale –

Final grade is calculated according to the following schedule

Home work and projects	55%
Quizzes	20%
Final	25%

And the grade scale is:

A(100-90),B+(89-85),B(84-80),C+(79-75),C(74-70),D+(69-65),D(64-60),F(59-0)

13. Make-up Exam Policy –

All students should plan to take their exams at the scheduled times. In the case of sudden or unexpected events that will cause them to miss an exam, students are required to notify the instructor prior to the exam or as early as possible. Make-up exams are given only in exceptional circumstances with the Instructor's permission.

14. Honesty Policy –

All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

15. Accommodation for Students with Disabilities –

Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

16. UF Counseling Services –

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling.
- SHCC mental Health, Student Health Care Center, 392-1171, Personal and Counseling.
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

17. Software Use –

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.