

Course Syllabus
CAP 3032 Interactive Modeling and Animation I
Section 2606, Spring 2013

1. Catalog Description (3 credits):

Introduction to programming and data structures for interactive two-dimensional multimedia applications. Representing form and transforms in two dimensions, capturing user actions and driving application behavior interactively. Graphical interfaces, image processing, automata and basic artificial intelligence.

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

- Understand the foundations of computing
- Write/Execute programs written in processing
- Create two dimensional animations
- Handle objects interaction
- Implement input and event listeners

4. Instructor: Dr. Rong Zhang

Office location: CSE E526

Telephone: 505-1542

E-mail address: rzhang@cise.ufl.edu

Office hours: MF 12:00 – 1:15pm or by appointment in CSE 526

5. Teaching Assistant: Kun Li

E-mail address: kli@cise.ufl.edu

Office hours: Tu 3:00-4:30pm, Th 9:30-11:00am or by appointment in CSE 309

6. Meeting Times and Location:

MWF period 3 (9:35am – 10:25am) in CSE E211A

7. Textbooks and Software Required

Required textbook: **Learning Processing: A Beginner's Guide to Programming Images, Animation, and Interaction**, By Daniel Shiffman
Publisher: Morgan Kaufmann
ISBN: 978-0123736024

Recommended textbook: **Processing: A Programming Handbook for Visual Designers and Artists**, By Casey Reas and Ben Fry
Publisher: The MIT Press
ISBN: 978-0262182621

Software: the Processing Language and Environment – free software that can be downloaded from www.processing.org

8. Course Outline -

There might be a slight shift in topics depending on the backgrounds or interests of the students.

- Introduction to digital image
- Basic programming concepts: variables, conditionals, loops, etc.
- More programming concepts: arrays, function, etc.
- Basic geometry, shapes
- 2-D Transformations: translation, scale, and rotation
- Object interaction
- Interactivity, input and event listeners
- Graphical user interfaces
- Image handling
- Automata and Artificial Intelligence

9. 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 submit your completed work before the due date to avoid a penalty if an assignment is due. Cell phones should be turned off or set to vibrate.

10. Homework Policies –

You may discuss assignments with other students. But you must write your answer by yourself. If your work is proven to be copied from another student, 0 points 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.

11. Quiz Policies –

There will be 6 20-minute quizzes given during lectures. No notes, books, or other assistance will be allowed during the quizzes. There will be **no** makeup quizzes. The lowest quiz score will be dropped from your final grade.

12. Grading Scale –

Final grade is calculated according to the following schedule

Quizzes	25%
Homework and projects	50%
Final project	25%

And the grade scale is:

A(100-95), A-(94-90), B+(89-87), B(86-83), B-(82-80), C+(79-77), C(76-73), C-(72-70), D+(69-67), D(66-63), D-(62-60), 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.