CMPS 310 Game Programming

3.0 hours credit, 45 contact hours.

Tue & Thur 2:00 pm ~ 3:20 pm @ Room 209, Thurman Hall.

Instructor: Shizhong Yang, Room E113, School of Computer Science

Phone: 771-3113.

Office hours: Tue/Thur 11:00 am -12:30 pm.

Textbooks:

Recommended:
ISBN: 978-0-262-02828-8
Author: Casey Reas and Ben Fry

Specifics:

A. This course introduces students to the design and implementation of video games. Topics include basic game artificial intelligence, storyboarding, graphics and animation programming and sound. This course will require significant programming. This course will be hands-on with the goal of successfully implementing most of the material covered in the course. The final project of the course will be the implementation of a video game.

B. Prerequisites: CMPS 190.

Topics:

The students will participate in the programming of video games. The projects will vary from semester to semester and will be chosen for intrinsic interests and being easy enough to be solved. The course will have the students practice details as they are doing their projects. The open source Processing will be used for coding. Students will install setup their own coding environment in their desktop/laptop, start from the simple moving objects codes, do more complicated projects and test run their codes step by step. All projects will be assigned and
graded on Moodle. The study guide will be provided for students to prepare their midterm and final.

Program ABET Outcomes:

This course addresses ABET Program Outcomes a, b, and c. Each graduate by the time of graduation will demonstrate:

**Outcome a:** an ability to apply knowledge of computing and mathematics appropriate to the discipline. [PEO1]

**Outcome b:** an ability to analyze a problem, identify and define the computing requirements appropriate to its solution. [PEO2]

**Outcome c:** ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs. [PEO2]

Course Work Evaluation:

<table>
<thead>
<tr>
<th></th>
<th>Approx. weight in grade</th>
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<tbody>
<tr>
<td>Assignments, projects</td>
<td>20%</td>
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<tr>
<td>Midterm</td>
<td>35%</td>
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<tr>
<td>Final</td>
<td>35%</td>
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<tr>
<td>Attendance</td>
<td>10%</td>
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Grading:

- 90%-100% A
- 80%-89% B
- 70%-79% C
- 60%-69% D
- 59% and less F