**3902 Syllabus**

**Short Description**

Intensive group project involving design, development, and documentation of an interactive software system, a 2D interactive game; communication skills emphasized; builds programming maturity.

**Course Objectives**

The aim of this course is for students to:

* Be competent with 2D graphics objects and rendering.
* Be competent with event based programming.
* Be familiar with elements of game engines such as AI, animation, memory management, and user control.
* Be familiar with game content creation and editing tools.
* Be competent with writing, organizational, and communication skills.
* Be competent with analyzing the intended audience for a written document and writing an audience profile.
* Be familiar with making engineering decisions involving tradeoffs (e.g., space-time tradeoffs in choosing a table implementation).
* Be familiar with defining the purpose (persuade, inform, etc.) of a written document and select the appropriate rhetorical devices.
* Be familiar with writing several pieces of documentation that have different purposes and to use appropriate organization to tie them together.
* Be familiar with group project organization techniques including conducting group meetings, recording minutes, and tracking project progress.
* Be familiar with using one structured approach to large software design to carry out a large group project.

**Prerequisites**

CSE 2231 (321); CSE 2321 (Math 366); CSE 2421 (360) or ECE 2560 (265); and a second writing course (this last one soon to be dropped based on changes in general education requirements).

**Textbooks**

* *See Reading Resources on the course homepage*

**Team Work**

The group project in this class is designed to model software engineering in a real workplace. These projects are to be done in teams of four or five which you are to form during the first few weeks of class.

Each team member must do equal work across the entire set of projects. If a team member is not doing equal work it is the responsibility of the other members to let me know that a problem exists. Most often we can head off problems before it is too late.

If there is evidence that a team member is not providing the same level of effort or does not have the same level of involvement or understanding of the system as the rest of the team, different grades may be assigned. On the other hand, if one person opts to do most of the work, there is no guarantee that he or she will receive a better grade. Indeed, if he or she hindered the experience of others in the group, a lower grade may be assigned to that person.

**Basic Grading Scheme**

* *See Grading Plan on the course homepage*

**Late Policy**

Due to the continuous nature of the project, turning in work late is highly discouraged. A penalty of 10% off will be applied to any project submission turned in late up to 24 hours after the deadline. Work turned in more than 24 hours after the deadline will not be accepted.

Lateness on the individual project assignment at the start of the semester will be handled differently, and are provided in that assignment’s details.

**Disability Statement**

Any student who feels they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. The Office for Disability Services will help in coordinating reasonable accommodations for students with documented disabilities.

**Academic Misconduct**

Making use of any code (other than that covered in class or in materials on the course website) on the individual assignment (Sprint0) is a violation of course rules. On the remainder of the project, you may make use of other code found online on two conditions: 1) it must be integrated into your existing project, not replacing the whole thing or substantial pieces of the whole, and 2) you must include a comment citing where the code came from and explaining how you are using it. If you have any concerns about whether something you are considering doing is appropriate, be safe and ask first. All academic misconduct will be dealt with according to university procedures.

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