CMSI 499
INDEPENDENT STUDIES:
XBOX 360 GAME DEVELOPMENT
http://myweb.lmu.edu/dondi/spring2008/cmsi499ts

Course Objectives

To embark on a self-directed course of study in a specific area of computer science, under the guidance of the instructor. The student selects the topic and assists in identifying source material. In addition to learning more about the specific topic, the student will learn how to organize, execute, and document an intensive, individualized semester of self-study. Additional objectives depend on the selected subject matter.

Course Requirements

For individual studies in Xbox 360 game development, the student must have proficiency with fundamental object-oriented programming concepts. Some background in computer graphics and prior experience with a 3D graphics API is also helpful.

Materials and Texts

To be identified and reported by the student.

Course Work and Grading

Graded coursework consists of 1 study journal in the form of a blog (20%), 1 final study report (40%), and 1 Xbox 360-ready game (40%). Letter grades are determined as follows: ≥ 90% gets an A– or better; ≥ 80% gets a B– or better; ≥ 70% gets a C– or better. The instructor may curve your grade upward based on qualitative considerations such as degree of difficulty, effort, time constraints, and overall attitude throughout the course. Grades are never curved downward.

Study Journal

You will maintain a Web log (blog) of your study progress. No particular blog service, server, or software is required; you may select whatever is most available or convenient at the time. Your blog serves as an on-going account of your study. Blogging gives you an opportunity to express your-self while ideas or events are still fresh, at the same time providing structure and persistence that gives it lasting value.

Your study journal will be graded according to the same criteria as the final paper (see below). The frequency and number of blog entries affects the content and organization components of the study journal's grade.

The study journal will be graded at the end of finals week, <u>May 9</u>. You are, of course, free to maintain the blog beyond the semester — the spirit of a 499 course is, after all, to give you an opportunity to get official credit for something that you would want to study on your own anyway. Continuing the blog provides you with a framework for pursuing this study beyond the scope of the semester.

Final Study Report

You will formally document the overall result of your studies in the form of a final report to be submitted at the end of the semester. The report shall consist of at least the following sections:

1. An introduction that states the background and motivation for this course of study,

2. A literature review describing the source materials studied,

3. A summary or survey of what was learned during the semester, and

4. A specific description of the programming project, in terms of its design, functionality, and relationship to the selected topic.

To help you to focus on the actual work and content of the report (as opposed to busy work such as formatting and reference management), it must be written using LaTeX. We will talk about LaTeX early in the semester. A LaTeX outline/template for the report will be provided to get you started.

There are no hard limits on length, but 10–20 pages in LaTeX's default article format, not includ-

ing the list of references cited, is typical. The report will be evaluated along the following criteria:

1. *Content (40%):* What is the quality of the work? Are the background and motivation relevant and well-stated? Is the literature review thorough and well-described? Is the summary or survey complete and substantive? How well-documented is the programming project?

2. *Organization (30%):* Is the text structured well? Are its ideas and flow easy to follow? Are distinct sections or topics clearly identified?

3. *Writing (20%):* Are statements clear and easy to follow? Is the language precise and grammatically correct? Is the paper's tone appropriate?

4. *Polish (10%):* Is the content properly proofread? Are there any misspellings, typos, or other formatting faux pas?

The final study report is due at the end of finals week, May 9.

Xbox 360-Ready Game

You will apply what you learn in the form of an Xbox 360-ready game. Deliverables include the source code to this game, committed to version control, as well as a disk that is ready for insertion and play into an Xbox 360. The project will be graded along these criteria:

1. *Design (30%):* How good is the overall structure of the code? Is it clear, flexible, and easy to maintain? Is it elegant or innovative? How well does it apply the principles of "separation of concerns" and "one change, one place?"

2. *Functionality (30%):* How well does the code work? Does it fulfill requirements? Are its results accurate or correct? Does it perform its tasks in a reasonable amount of time? How well do unit tests validate the code?

3. *Naming (20%):* Are program entities — classes, subroutines, variables, etc. — clearly and consistently named? Do their names correspond to their functions and roles?

4. *Comments (15%):* Are comments provided where appropriate? Are they clear and well-written? Does the code take advantage of any special support for comments provided by the project language or platform?

5. *Version control (5%):* Is the code committed at reasonable intervals? Are milestones appropri-

ately tagged? Are adequate descriptions of provided in the commit logs?

The source code and disk are due at the end of finals week, May 9.

Attendance

Meeting and session schedules are determined individually, and may vary according to the specific subject matter and/or course work. Remember that the university add/drop with 100% refund deadline is January 18. The deadline for withdrawal or credit/no-credit status is March 14 .

University Policy on Academic Honesty

Loyola Marymount University expects high standards of honesty and integrity from all members of its community. Applied to the arena of academic performance, these standards preclude all acts of cheating on assignments or examinations, plagiarism, forgery of signatures or falsification of data, unauthorized access to University computer accounts or files, and removal, mutilation, or deliberate concealment of materials belonging to the University Library.

Course Schedule

Dependent on the specific subject matter and ongoing progress.