

ATEC 3351: COMPUTER GAME DEVELOPMENT

Wednesday, 3:30 – 6:15 PM

HRA 1.102

Fall 2005

Instructor: Monica Evans

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COURSE DESCRIPTION

Introduction to the theory and creative design of computer games, focusing on user motivation, game dynamics, and the formation of compelling experiences within increasingly complex, open-ended technology. Culminates in the creation of an original design document by each student. This class may be repeated for credit (9 hours maximum). Prerequisite: CS 1315 or CS 2315. (3-0) S

REQUIRED TEXTS

Game Design: Theory and Practice, 2nd Ed., Richard Rouse III (Wordware, 2004)

Ender's Game, Orson Scott Card (NY: Tor, 1985)

Selected online readings

COURSE REQUIREMENTS/EVALUATION CRITERIA

There will be reading assignments throughout the semester followed by group discussion and individual analysis. Students will prepare a conceptual "pitch" document and a technical design document for a full-length, original computer game of their design. Students who have previously taken this course will create a working prototype game based on an original design. This course is partially designed as a crash course in creative writing for aspiring game designers; assignments should emphasize concept, vision, and idea over current technological capabilities. (Course requirements may be amended or changed; such changes will be submitted in writing with sufficient advance notice for completion.)

GRADING

Readings and In-Class Exercises	15%
Game Analysis Paper	10 %
Concept Document and Proposal	25 %
Design Document and Proposal	35 %
Attendance and Participation	15 %

For students taking the course for a second or third time:

Readings and In-Class Exercises	15%
Design Document	10 %
Alpha Version and Presentation	25 %
Beta Version and Presentation	35 %
Release Candidate One	15 %

COURSE SYLLABUS

All readings should be completed by the date listed. This syllabus is subject to change at the discretion of the instructor (all changes will be furnished to students in writing).

- Aug. 24 Introduction to the course: theory, practice, individual design. Who are we and what are we doing here?
 READING: Rouse Ch. 1, 3
 Sign up for Game Analysis Paper
DESIGN TEAM: Set milestones for semester project
- Aug. 31 How to get a game started: brainstorming, genre-bending, and the focus. Plus, Tom Hall's Ten Commandments of Game Design!
 READING: Rouse Ch. 5, *Ender's Game* Ch. 6
 ONLINE READING: Huizinga, *Homo Ludens* (selection)
- Sept. 7 Elements of gameplay: what the system won't let you get away with. Interface, interactivity, and the gimmick quotient. *SPEAKER: Dr. Thomas Linehan, Director, ATEC and IIAE*
DUE: Game Analysis Paper
DESIGN TEAM: Turn in Design Document
 READING: Rouse Ch. 7, 17
 ONLINE READING: Meadows, *Pause and Effect* (1.4: Interactivity)
- Sept. 14 Character design: templates, buddies, mutes, and avatars. Motion and animation. Tour of UTD's Motion Capture Lab.
 ONLINE READING: Schaefer, "*Adventures in Character Design*"
 Godwin, "*The Cold Equations*"
DUE: Concept Document Proposal
- Sept. 21 Scenario design. Story arcs, player/designer authorship, and multi-linear narrative.
 READING: Rouse, Ch. 11
 Murray, *Hamlet on the Holodeck* (selection)
 ONLINE READING: "*The Grand List of Console RPG Clichés*"
 and "*The Evil Overlord List*"
- Sept. 28 Level design. Protoville, doors before keys, and things you never, ever do to the player. *SPEAKER: Scott Swearingen, formerly of Gearbox Entertainment*
 READING: Rouse, Ch. 23
 ONLINE READING: to be announced

- Oct. 5 World design: graphics, aesthetics, music, and sound. Realism vs. believability. *SPEAKER*: Richard "Levelord" Gray and Robert Atkins, Ritual Entertainment
DUE: Concept Document
DESIGN TEAM: Present Alpha version of game
- Oct. 12 Artificial Intelligence and the Zen of Coding
READING: Rouse Ch. 9, 19
ONLINE READING: Kurzweil, *The Age of Spiritual Machines* (selection)
- Oct. 19 Persistent world design: virtual politics, economics, and socialization in massively multiplayer systems.
READING: Rouse Ch. 13
ONLINE READING: Bartle, *Designing Virtual Worlds* (selections)
- Oct. 26 Violence and ethics. War games, Christian games, and game addiction. *SPEAKER*: Tim Christopher, UTD graduate student
READING: Ender's Game (the whole book)
ONLINE READING: Takahashi, "Ethics of Game Design"
"Violent Video Games are Training Children to Kill"
BBC News, "Video Games Good For Children"
- Nov. 2 The business of gaming and industry hierarchies. Educational gaming: is it impossible, worth doing, or unavoidable? *SPEAKER*: Simon Hurley, Gearbox Entertainment
ONLINE READING: Gee, *What Video Games Have to Teach Us About Learning and Literacy* (selections)
- Nov. 9 Games and other media: books, films, and current events.
ONLINE READING: "Postmortem: Stardock's The Political Machine"
"September 12th"
DESIGN TEAM: Present Beta version of game
- Nov. 16 Games as an art form. Serious games: are art and entertainment mutually exclusive? Class wrap-up and student evaluation.
ONLINE READING: to be announced
- Nov. 23 No class – enjoy the Thanksgiving holiday!
- Nov. 30 Final Exam day.
DUE: Design Document
DESIGN TEAM: Present Release Candidate One

THINGS YOU NEED TO KNOW

The following policies are in the UTD Catalog and pertain to this class.

Incomplete Grades: A grade of Incomplete may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of X) must be completed within the time period specified by the instructor, not to exceed eight weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol X may be converted into a letter grade (A through F) by the instructor. If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F. Extension beyond the specified limit can be made only with the permission of the instructor and the student's ADU (or the Undergraduate Dean in the case of students without declared majors). A student may not re-enroll in a course in which a grade of X remains.

Students may obtain a petition/documentation form for an Incomplete in the office of the student's ADU. The form is to be submitted to the instructor from whom the Incomplete is sought. Students should be aware that an Incomplete is only appropriate for work unavoidably missed at semester's end. Students should contact their school office for school policies on Incompletes. If a significant fraction of a semester is missed with cause, see the section on "Withdrawing from and Adding Courses".

An instructor assigning an Incomplete must submit the petition/documentation form containing a description of the work required to complete the course to the ADU of the school offering the course. Upon approval, a copy of the petition will be forwarded to the student's ADU to be retained with the student's academic record. The instructor alone will be responsible for determining whether the requirements for completion are met and for assigning the grade in the course.

However, if the instructor who has signed the Incomplete is no longer associated with U.T. Dallas and the work is completed within the time allowed before the Incomplete lapses to an F, the Associate Dean of the instructor's college may assign a committee of appropriate faculty to evaluate the material and/or obtain any other information which may be required to assign the grade in the course.

Academic Dishonesty

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work of material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Academic Appeals

1. Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's Handbook of Operating Procedures. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the

instructor, supervisor, administrator, or committee with whom the grievance originated (hereafter called "the respondent.") Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy to the respondent's school dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the school dean. If the grievance is not resolved by the school dean's decision, the student may make a written appeal to the dean of graduate or undergraduate studies, who will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

2. Copies of these rules and regulations are available to students in the Office of the Dean of Students where staff is available to assist students in interpreting the rules and regulations.