


Undergraduate Council
 New Course Course Change
 Core Category: ADJ Effective Fall 2008

or

Graduate/Professional Studies Council
 New Course Course Change
 Effective Fall

RECEIVED OCT 15 2007

APPROVED FEB 20 2008

1. Department: COSC College: NSM
2. Person Submitting Form: D.Hill/Johnson Telephone: 3-3256
3. Course Information on New/Revised course:
 - Instructional Area / Course Number / Long Course Title:
COSC / 4358 / Introduction to Interactive Game Development
 - Instructional Area / Course Number / Short Course Title (30 characters max.)
COSC / 4358 / INTRO TO INTERACTIVE GAME DEV
 - SCH: 3.00 Level: SR CIP Code: 1102020006 Lect Hrs: 3 Lab Hrs: 0
4. Justification for adding/changing course: To provide for new discipline areas
5. Was the proposed/revised course previously offered as a special topics course? Yes No
 If Yes, please complete:
 - Instructional Area / Course Number / Long Course Title:
COSC / 4397 / Introduction to Interactive Game Development
 - Content ID: 16876 Start Date (yyyy3): 20073
6. Authorized Degree Program(s): BS
 - Does this course affect major/minor requirements in the College/Department? Yes No
 - Does this course affect major/minor requirements in other Colleges/Departments? Yes No
 - Are special fees attached to this course? Yes No
 - Can the course be repeated for credit? Yes No
7. Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)
8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
 / /
 • Start Date (yyyy3): Content I.D.:
9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)
 Cr: 3. (3-0). Prerequisite: COSC 4370. Description (30 words max.): Team development of interactive video games on state-of-the-art devices.
10. Dean's Signature:  Date: 11 Oct '07
 Print/Type Name:



COURSE TITLE/SECTION: COSC 4358 Introduction to Interactive Game Development

TIME: Monday/Wednesday 2:30pm-4pm

FACULTY: Zhigang Deng

OFFICE HOURS: 4-5pm, Wednesday

E-mail: zdeng@cs.uh.edu

Phone: 713-743-1018

FAX: 713-743-3335

I. Course

A. Catalog Description

Cr. 3. (3-0). Prerequisites: COSC4370 and consent of instructor.

B. Purpose

This course will introduce some basic techniques fundamentals (theories and practices) of interactive game development in **PC** and **XBOX 360** environments. The game development involves learning Microsoft **XNA** and **C#**, as well as basic modeling, texture techniques and animation.

II. Course Objectives

Upon completion of this course, students will be able to:

1. Familiar with modern game development tools, including Microsoft **C#** and **XNA** programming.
2. Learned how to work on complex projects as a team player.

II. Course Content

- o Week 1: Introduction to game development
- o Week 2: How to build a game
- o Week 3: XNA graphics programming and shaders
- o Week 4: Animation mechanism and character movement
- o Week 5: Texturing your game and add skies and horizons
- o Week 6: Index buffers and combining Images for better visual effects
- o Week 7: 3D models, score tracking and game statistics

- Week 8: Vectors and Matrices
- Week 9: Building a graphics engine camera and collision detection
- Week 10: Ballistics and particle effects
- Week 11: Keyframe animations and lighting
- Week 12: input devices and content pipeline processors
- Week 13: Animation models and adding audio to game
- Week 14: Terrain and multiplayer gaming
- Week 15: Individual project presentation I
- Week 16: Individual project presentation II
- Week 17: Group project presentation I
- Week 18: Group project presentation II

III. Course Structure

The first half of the course consists of lectures; the second half consists of student presentations on laptops and XBOX 360s.

IV. Textbooks

Book:

"*Microsoft XNA Game Studio Creator's Guide*", by Stephen Cawood and Pat McGee, Mc Graw Hill Press, 1st edition, 2007.

V Course Requirements

A. Reading Assignments

Textbook.

B. Written Assignments

C. Projects (as needed)

Each student must work on an individual project, and 2-4 students are teamed up to work on a final project, including a final presentation and a written final project report (6-8 pages) for each final project.

D. Exams (as needed)

No midterm and final exams

VI. Evaluation and Grading

- No midterm and final exam
- Homework 15%

- Individual project 30%
- Final Project 45%
- Participation/attendance of the class 10%

The following rule (for the total score students get) is applied to give final grades:

>=85	A
80-84	A-
75-79	B+
70-74	B
65-69	B-
60-64	C
< 60	D

Policy on grades of I (Incomplete): Something about incompletes should be included in all syllabi.

VII. Consultation

Prof. Olin Johnson	Office Hours: T-Th 03:00-05:00 p.m. at 596-PGH
Computer Science Department	
University of Houston	
596 - Philip G. Hoffman Hall	
Tel. 713-743-3343	
Email: johnson@cs.uh.edu	
URL: http://www2.cs.uh.edu/~johnson2	

VIII. Bibliography

Book:

"Microsoft XNA Game Studio Creator's Guide", by Stephen Cawood and Pat McGee, Mc Graw Hill Press, 1st edition, 2007.

Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.