Entertainment Computing

071012-1
2019년 봄학기
3/7/2019
박경신

Course Information

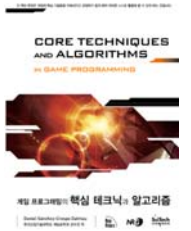
- Course
  - Entertainment Computing (071012-1)
  - Spring 2019 3 credits, 3 hours
  - Course hour & room: Thursday 10-15 (2nd Eng Bld #420)
- Instructor
  - Kyoung Shin Park
  - kpark@dankook.ac.kr
  - 010-8636-1960 (mobile)
  - The Second Engineering Building, Room 512
  - Office hour: Thursday 10:00-12:00
- Prerequisite
  - none

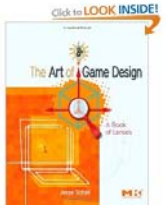
Purpose

- This course will provide an introduction to fundamental and advanced game design and programming techniques.
- In this course, students will form project groups to design and develop a simple computer games.
- Topics include video game history, software architecture for games, gameplay design, game graphics, interface, networking issues, etc.

Text Book

- Text Book
  - Core Techniques and Algorithms
    - Daniel Sanchez-Crespo Dalmau
    - 34,000 Won
- Reference Book
  - Game Architecture & Design: A NEW EDITION
    - Andrew Rollings, Dave Morris,
    - 29,000 Won
  - The Art of Game Design
    - Jesse Schell
    - 30,000 Won





Evaluation

- Attendance & Class Participation : 20%
- Midterm & Final Exam: 20 %
  - There will be a final take-home exam that covers all the subjects discussed in the classroom.
- Individual Assignment: 30%
  - 2~3 latest research paper will be presented and discussed for each student.
  - Paper presentation should be 20 minutes presentation and 10 minutes question and answer.
  - Non-presenter students must submit 1-page summary of the paper and one or more questions
- Term Project: 30%
  - Survey & brainstorming & storyboarding
  - Midterm implementation progress report & presentation
  - Final implementation report & presentation

Topics

- Overview
- Game History
- Gameplay
- Game Graphics
- Game Software Architecture Design
- Game Human-Computer Interaction
- Game Sound Design
- Game AI
- Game Physics
- Networked Game

Schedule

- 03/07 : Course Overview
- 03/14 : History of video games (chap 1)
  Introduction to Term Project
- 03/21 : Ludology & Understanding Fun
  IA (Reading summary report & presentation)
- 03/28 : Designing the Game & Gameplay Brainstorming
  논문발표 시작
  TP1 (game survey)
- 04/04 : Software Architecture of Game (chap 2 & 6)
  TP2 (game modification)
- 04/11 : Introduction to CG (chap 11 & 12)
  TP3 (game brainstorming)

Schedule

- 04/18 : Sound Design (chap 5)
  TP4 (game storyboarding)
- 04/25 : Midterm Presentation
- 05/02 : Human-Computer Interaction (chap 5)
  TP5 (game tech support)
- 05/09 : Game AI (chap 6, 7, 8)
  TP6 (game UI design)
- 05/16 : Networked Game Development (chap 10)
  TP7 (game AI design)
- 05/23 : Game Physics (chap 19)
  TP8 (collaborative interaction design)

Schedule

- 05/30 : Introduction to stereoscopic computer graphics
  TP9 (game physics design)
- 06/13 : Special Effects (chap 15, 17, 18)
  TP10 (final demo & presentation)
- 06/20 : Final Exam

Individual Assignment

- Reading summary report
  - 1-page report
- 2~3 Paper Presentation
  - 15~20 min presentation & discussion
  - 5~10-page (single-space, 10-point font) report

Paper Presentation

- 논문 발표: 10 %
  - Paper presentation은 개별적으로 진행한다. 학생수에 따라 3번의 발표가 있다. Extra 5%
  - 발표 20분과 질의응답 10분으로 구성한다.
  - 발표할 논문 주제는 reading list 나 본인이 흥미 있어하는 것으로 선정한다.
- 논문 읽기: 10 %
  - 발표자 외의 모든 학생들은 수업 전에 논문을 읽고 와야 하며 1-페이지의 논문 요약서를 수업 시작 전에 제출한다.
- 토론 참여: 10%
  - 또한 모든 학생들은 1개 이상의 질문을 준비해서 원활한 토론을 진행할 수 있도록 해야 한다.

Term Project

- Topic: Indie Game Development
- Students are encouraged to work on a project related to your own area of interest
  - Game idea brainstorming
  - Game survey
  - Term project critique & group members evaluation
  - Extra Credit 10% - paper reading & presentation
- Projects can be done as groups of two or three.
- Also, the project report should indicate to which portions of the project each member contributed.
- You group project blog will also help monitor your steady progress across the semester.
- Also, the final project report should indicate to which portions of the project each member contributed.

Term Project

- Game survey
- Game modification
- Game brainstorming & storyboarding
- Game technology support & UI & AI & physics design
  - 10~15 min presentation & discussion
  - 5~10-page (single-space, 10-point font) report
- Final demonstration & presentation
  - 20 min presentation & demonstration
  - 10-page (single-space, 10-point font) report

Term Project Groups

- Term Project Group (3/21)
  - Company name
  - Game name & concept
  - Group member's name & contact information

Tentative Presentation Schedule

- 03/28 – Survey Presentation
- 04/04 – Modification Presentation
- 04/11 – Brainstorming Presentation
- 04/18 – Storyboarding Presentation
- 04/25 – Midterm Presentation
- 05/02 – Game Technical Support Design Presentation
- 05/09 – Game UI Design Presentation
- 05/16 – Game AI Design Presentation
- 05/23 – Game Collaborative Interaction Presentation
- 05/30 – Game Physics Presentation
- 06/13 – Term Project Final Presentation
- 06/20 – Final Exam

Announcement

- Class blog:
  http://dis.dankook.ac.kr/lectures/ec19/
- Bring your 2~3 research papers by 3/14 & Decide the final presentation schedule by 3/21
- Start the paper presentation on 3/28