

# Spring 2013 Game Programming

305890  
Spring 2013  
3/8/2013  
Kyoung Shin Park  
Multimedia Engineering  
Dankook University

## Course Information

- Course
  - Game Programming (305890)
  - Spring 2013, 3 credits, 3 hours
  - Course hour: Friday 9:30-12:30
- Instructor
  - Kyoung Shin Park
  - [kpark@dankook.ac.kr](mailto:kpark@dankook.ac.kr)
  - 010-8636-1960 (mobile)
  - The Third Science Hall, Room 417
  - Office hour: Monday 1:00-2:00
- Prerequisite courses
  - HCI Programming I (Data Structure, C/C++ Programming), Graphics Programming

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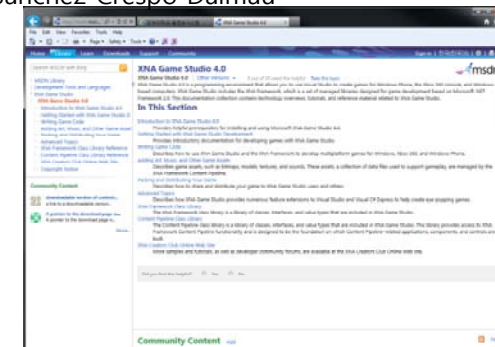
## Purpose

- This course introduces the fundamental concepts of 3D computer game programming.
- Students will learn and practice XNA programming basics, game graphics programming techniques, the tools needed for game production.
- In this course, students will form project groups to create a simple computer game using XNA to develop game design skills.

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## Text Book

- Microsoft XNA Game Studio 4.0
  - [http://msdn.microsoft.com/en-us/library/bb200104\(v=XNAGameStudio.40\).aspx](http://msdn.microsoft.com/en-us/library/bb200104(v=XNAGameStudio.40).aspx)
- Reference Book
  - Core Techniques and Algorithms in Game Programming, Daniel Sanchez-Crespo Dalmau



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## Evaluation

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- Attendance : 20%
- Midterm Exam : 30 %
  - There will be a midterm exam that covers all the subjects discussed in the classroom.
- Individual Assignment : 20 %
- Term Project : 30%
  - Proposal 5%
  - Midterm progress report & presentation 10%
  - Implementation 5%
  - Final report & presentation 10%
- **Class Participation & Attitude: extra 10 %**

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## Schedule

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- 3/08: Course Overview  
XNA Initialization
- 3/15: Rendering Pipeline  
Drawing
- 3/22: Vector & Matrix  
Transformation
- 3/29: Euler, Axis-Angle, Quaternions  
**Term Project Proposal Presentation**
- 4/05: Input & Introduction to Kinect  
Model
- 4/12 : Effect  
Color & Lighting

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## Schedule

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- 4/19: Texturing & Blending  
Stencil
- 4/26: **Midterm**
- 5/03: **Term Project Midterm Presentation**
- 5/10: Sound
- **5/17 : 석가탄신일 (no class)**
- 5/24 : Mesh & Mesh Hierarchy Animation
- 5/31: Camera  
Terrain Rendering
- 6/07: Game Physics
- 6/14 : Particle System  
Picking
- 6/17 : **Term Project Final Presentation**

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## Exams

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- Midterm Exam
  - Chapter ~Blending
  - 2-hour **open-book** exam

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## Programming Exercises

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- Programming Exercises
  - 5~10 Assignments
  - Turn in all your source codes, executable, short report containing the snapshot

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## Term Project

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- XNA Game Development
- Students will work on a semester-long project that will comprise a major part of the class grade.
- Students are encouraged to work on a project related to your own area of interest.
- 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.

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## Term Project

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- Project proposal & 5-min presentation (3/29) 5%
  - Project groups will form (2 or 3 students in each group)
  - Once a group is form, send me email
  - 2~3-page (single-space, 10-point font) report
- Project progress report & presentation (5/03) 10%
  - Implementation progress
  - 10 minutes presentation
  - 3~5-page (single-space, 10-point font) report
- Project implementation & Blogging 5%
- Project final report (6/17) 10%
  - 10-20 minutes in-class presentation & demo
  - 10-page (single-space, 10-point font) report
  - Turn in all your source codes & executable

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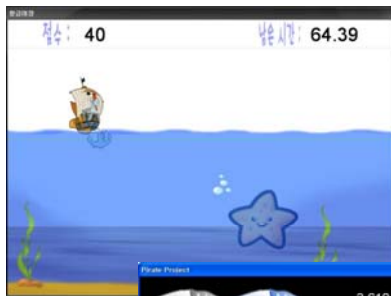
## Term Project

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- Data Set
  - A collection of 3D models (models.zip 135MB)
  - A collection of textures (textures.zip 17MB)
  - A collection of sound effects (sounds.zip 57MB)

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## Spring 2007 Students' Term Project



황금어장



체스 (2인용 네트워크 버전)



해적

DirectX9 + Joystick

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## Spring 2007 Students' Term Project



리듬플러스

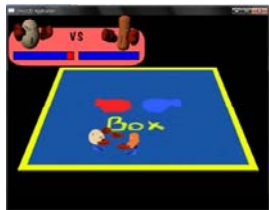
DirectX9 + Joystick



토이박스

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## Spring 2008 Students' Term Project



Food Fighter



미로게임

DirectX9 + Joystick



두더지게임



Save the Spy

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## Spring 2009 Students' Term Project



Top Gun

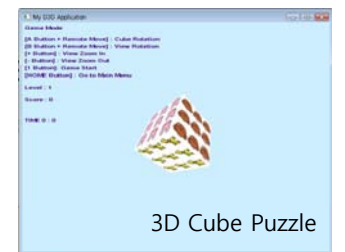
DirectX9 + Wiimote



Gone



Penguin Gogossing



3D Cube Puzzle

## Spring 2010 Students' Term Project



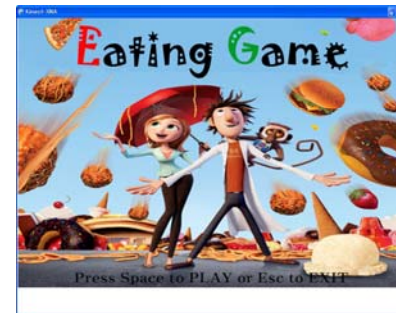
Snow Battle

DirectX9 + Shader



Gladiator

## Spring 2011 Students' Term Project



Food Eating

XNA + Kinect

## Spring 2012 Students' Term Project



Runaway North

XNA + Kinect



Penguin Olympic

## Announcement

- Class blog:
  - <http://dis.dankook.ac.kr/lectures/game13/>



Days 1 - 10  
Teach yourself variables, constants, arrays, strings, expressions, statements, functions,...



Days 11 - 21  
Teach yourself program flow, pointers, references, classes, objects, inheritance, polymorphism, ....



Days 22 - 697  
Do a lot of recreational programming. Have fun hacking but remember to learn from your mistakes.



Days 698 - 3648  
Interact with other programmers. Work on programming projects together. Learn from them.



Days 3649 - 7781  
Teach yourself advanced theoretical physics and formulate a consistent theory of quantum gravity.



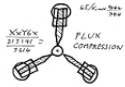
Days 7782 - 14611  
Teach yourself biochemistry, molecular biology, genetics,...



Day 14611  
Use knowledge of biology to make an age-reversing potion.



Day 14611  
Use knowledge of physics to build flux capacitor and go back in time to day 21.



Day 21  
Replace younger self.



As far as I know, this is the easiest way to "Teach Yourself C++ in 21 Days".

<http://adt.soup.io/post/47737983/Teach-yourself-C-in-21-days>