

King Mongkut's University of Technology Thonburi

Faculty of Industrial Education and Technology Department of Computer and Information Technology

Code: CMM 342

Subject: Game Development I

Credit: 3 (2-2)

Instructor:

Asst.Prof.Dr. Arsa Tangchitsomkit

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Course Description

The objectives are to study the fundamental theory and principle for creating, analyzing and developing game, type of game, game component, and process of various kind of game development, application of game in any area and tools used in game development..

Objective

1. Understand basis of game programming.
2. Understand ARSA Framework tools.
3. Understand cross platform game programming.

Content

Week	Description
1	<ul style="list-style-type: none">● Introduction ARSA Framework.● Cross Platform Game Development.● First Program!● Understand game loop.
2-3	<ul style="list-style-type: none">● Load 2D Image.● Load Sound, Music.● Touch Input.● Launch game to store.
4	<ul style="list-style-type: none">● Image Collision
5-6	<ul style="list-style-type: none">● 2D Image Layer● Audio / Video● Missile
7	<ul style="list-style-type: none">● Special FX

8	<ul style="list-style-type: none"> ● Save Game ● Load Game
9	<ul style="list-style-type: none"> ● Midterm.
10	<ul style="list-style-type: none"> ● Player Status ● Gage Parameter
11-12	<ul style="list-style-type: none"> ● Game State ● Server - Client Connection
13-14	<ul style="list-style-type: none"> ● Game Theory Techniques. ● Artificial Intelligence. ● Manager. ● FSM (Finite State Machine). ● Fuzzy Logic System. ● OOP VS Top to Down Program. ● Game Business.
15	<ul style="list-style-type: none"> ● Final.

Activity

1. Lecture
2. Lab

Adjustment (100 Points)

1. Midterm (70 Points)

Class	10 Points
Midterm exam	20 Points
Homework	20 Points
Reports	20 Points

2 . Final exam (30 Points)

Adjustment Rule

Points	0-49	50-54	55-59	60-69	70-79	80-84	85-89	90-100
Grade	F	D	D+	C	C+	B	B+	A

Book & Handouts

Handouts.

1. Arsa Tangchitsomkit. 2015. ARSA Framework: Cross Platform Game Programming.
Bangkok. www.sarosworld.com/site

Additional book and website.

1. Arsa T. "Hardcore Game Programming Episode II+III+IV". Published by Innovation media printing. 2005
 2. Arsa T. "Hardcore Game Programming Episode I". Published by ARIP Public Company Limited. 2004
 3. Arsa T. "Advanced DirectX". Published by SE-EDUCATION Public Company Limited. 2002
 4. Arsa T. "DirectX Game Programming". Published by SE-EDUCATION Public Company Limited. 2001
 5. Game developer network. 2548. www.gamedev.net
 6. Game developer resources. 2548. www.gamasutra.com
 7. Game programming. 2548. www.flipcode.com
 8. Brian W. Kernighan and Dennis M. Ritchie, The C Programming Language, Prentice-Hall, Inc.
 9. Byron S. Gottfried, Theory and Problems of Programming with C, Schaum's Outline Series, International Edition, McGraw-Hill, Inc, ISBN 0-07-023854-5
 10. Borland International, Inc., Borland C++ Version 2.0 Getting Started
 11. Greg Voss and Paul Chui, Turbo C++ Disk Tutor 2nd edition, Osborne McGraw-Hill, ISBN 0-07-881737-4
 12. Lawrence H. Miller, Alexander E. Quilici, The joy of C, 3rd Edition, John Wiley & Sons, 1997
 13. Steven C. Lawlor, , West Publishing Company, 1996. The art of programming computer science with C
 14. Greg Voss and Paul Chui, Turbo C++ DiskTutor, 2nd edition, Osborne McGraw-Hill, ISBN 0-07-881737-4
 15. Harvey M. Deitel and Paul J. Deitel, C++ How to Program, 4th edition, Pearson Educational, Prentice Hall, ISBN 0-13-111881-1
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