



**The Illinois Institute of Art®
Chicago**

Course Title: Programming for the Artist

Course Number and Section:GAD415

Term: Winter

Year: 2007

Number of Contact Hours: 6

Time: 3:00 pm Monday and
Wednesday

Place: 180 N. Wabash

Instructor: Lindsay D. Grace

Office Phone / E-mail: lgrace@aii.edu

Office Hours: TBA

Website: <http://aii.lgrace.com>

Course Description:

This course is an introduction to computer programming from the game design artist's point of view. After the groundwork is laid in the artistic area, basic foundations of programming and design for games are presented.

This course will teach the game artist to program. The concepts discussed in this course are universal to all object oriented and procedural programming languages. To demonstrate the universal nature of programming fundamentals this course will be taught using two programming languages. During the first several weeks of the course, Visual Basic will be used to introduce the concepts of programming. During the last few weeks of the course, Maya's built in scripting language, MEL will be taught.

All fundamentals of programming will be taught, including looping, conditional statements, and procedures.

No prior programming knowledge is assumed.

Credit Value: 4 QHC

Prerequisites: **GAD408, MAA320, MAA150, MAA100, 1 math elective**

Textbook:

Required Materials

- USB thumb drive (for execution of programs, storing code and engine)
- Access to a PC formatted computer (no Macs)

Technology:

***Team chosen programming game programming language**

Choices include: BlitzBasic, DarkBASIC, et al

Objectives:

Upon successful completion of this course, students should be able to:

- Apply industry-standard storyboard and storytelling techniques to animation
- Observe and document errors in programming
- Identify the programming involved in multimedia
- Identify at least 2 programming languages
- Understand the nature of object-based programs
- Created procedures, function statements, and variables by using programming language concepts
- Create arrays and loops

Methods of Instruction: Lab and lecture

Methods of assessment:

Participation: 5%

Projects:

Group Game Project (week 7): 30%

Individual MEL Project: 30%

Exams and Quizzes:

Midterm Exam (week 5): 20%

Quizzes / Class Assignments 15%

Program Goals:

- Prepare students for successful employment, both short and long term.
- Instill in them the technical skills necessary for entry-level employment
- Aesthetic and creative awareness for meaningful communication
- Ability to self-teach toward staying proficient in the ever changing technological landscape leading toward a lifelong career.

- Equip students for entry-level jobs
- Give students a solid foundation based on the 12 principles of animation
- Develop strong visual/creative problem solving skills based on traditional drawing skills.
- Promote student professional demeanor, provide students with an understanding of the animation market, and identify and practice characteristics of professional conduct.

Weekly Schedule*

Week 1: Introduction – What is an IDE?

What is a Game Development Environment

In-Class: Find and present two Development Environments (compare)

Overview of Programming Fundamentals

Simple Debugging

Homework: Form teams of 3 and commit to game concept

Week 2: Data Types, Variables

Object Oriented Development

Homework: Commit to game engine

Homework: Find and demonstrate code for a game like your concept

Week 3: Chapter 3 and Supplements:

Collisions

Decisions and Loops

Homework: Flowchart game events

Homework: List MDD (game assets needed)

Homework: Write code to setup game environment (demo required)

Week 4: Chapter 4 and 13

Procedural Development

Native functions and Custom Functions

Homework: Write code to execute 3 primary actions in game

Week 5: Chapter 6

Demonstrate progress in games

Midterm exam

Week 6: Game Work Week

Week 7: Game Competition

Game projects due

Week 8: Introduction to MEL

Homework: Create a simple MEL instruction set

Week 9: MEL Procedures

Adding scripts to the UI

Homework: Individual MEL project proposal

Week 10: MEL Work Week

Homework Complete MEL project

Week 11: MEL Project Competition

Final projects due (with source code)

Grading System:

Point Score range	Letter Grade
93 and above	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	F

Course Requirements and Policies

All students must adhere to the guidelines set forth by the Illinois Institute of Art's student handbook.

All assignments are due at the beginning of the class. Students should hand provide a copy of their program on a **PC-formatted** 3.5" inch floppy disk.

Students should always keep a backup copy of their work.

No late assignments will be accepted. In this course, each assignment will build on the previous. Failure to complete the prior week's assignment will make each subsequent week harder. It is in your best interest to complete each assignment on time and to the best of your ability. Always hand in what you have, even if it does not work. **Partial credit is better than no credit at all.**

Attendance / Absences:

Students are expected to attend each class and arrive on time. Any student arriving late for an exam may not be given a chance to complete the exam. Late assignments are deducted one letter grade per day.

Makeup exams and acceptance of late assignments will only be granted in the following circumstances; Medical excuse, emergencies, campus-sponsored activities.

All issues of attendance and tardiness will be handled as school policy dictates and at the discretion of the instructor.

Cheating and Plagiarism:

Any student that cheats or plagiarizes will be reported to the academic standards committee and may be dismissed from the course.

All homework is to be completed independently (except when told otherwise). Any student who is caught or suspected of working in conjunction with any other student will be penalized. Using lines of code borrowed from any source other than the prescribed book for this course will be considered plagiarism. **Do not use websites, message boards, chat rooms, or other related resources to solve homework problems.**

*Schedule subject to change at the instructor's discretion.

I have read the entire syllabus carefully and understand the attendance policies and class policies concerning assignments. I understand that the class runs for six hours each week and I am personally responsible to be present for each session from start to finish. I am now informed that both late arrivals and early exits are noted in the attendance log.

Name (Print) _____

Phone Number _____

Current email _____