CS116
Course Syllabus

Course Title
CS116: Introduction to Computer Technology and Programming

Course Description
This class introduces programming environments to students who are not enrolled in a science program at DigiPen. The course provides students with an introductory overview of the fundamental elements on which computers are based, including basic computer hardware systems, operations, and structures. An introduction to basic programming will include simple logic, programming flow, loops, variables and arrays. Conditionals, evaluations and other control structures are also included. The instructor may cover special topics in programming or scripting and may focus on currently popular scripting languages in the video game industry.

Objectives and Outcomes
- Understand how to use a high level language to communicate with a computer.
- Understand what a compiler is and how it is used to translate high-level language into instructions that the computer can execute
- Understand and apply the process of compiling, linking and executing a program
- Understanding of basic loops, if-else or other conditional statements and structures
- Develop a vocabulary and understanding of programming concepts and terminology. This includes: Variables, Common operators, Conditional statements, Looping constructs
- Apply the course concepts to implement various algorithms to solve problems
- Exposure to ActionScript

Contact Information

Instructor:	Elie Abi Chahine
Office Hours:	Scheduling by appointment.
Email Address:	eabichahine@digipen.edu or echahine@digipen.edu
Course Home Page:	cs116f13.us at distance.digipen.edu/2013-fall/ (The website is accessible via student's DIT log-in credential)
Contact :	+425 629 5064

Section Day and Time Room

Section	Day and Time	Time	Room
CS116	Tuesday / Thursday	10:30am – 12:20pm	AL-KHAWARISMI

Textbook
- No textbook required

Reference (Optional)

- Programming ACTIONSCRIPT 3.0 (pdf given in class).
- Using ACTIONSCRIPT 3.0 Components (pdf given in class)
- Essential ActionScript 3.0, by Colin Moock; Published by O'Reilly Media / Adobe Dev Library, (ISBN: 0-596-52694-6)
- http://livedocs.adobe.com/flash/9.0/main/wwhelp/wwhimpl/js/html/wwhelp.htm

Course Materials

All course materials and activities, such as lecture notes, assignment, test practice, forums, announcements, calendar etc… will be available through distance.digipen.edu site.

Grading

Grades will be derived from homework assignments and exams. The detailed weightings and letter grades are as such:

Homework (40%)			
Assignment 0	**Assigned Week 2**	**Due Week 3**	**3%**
Assignment 1	**Assigned Week 4**	**Due Week 5**	**5%**
Assignment 2	**Assigned Week 5**	**Due Week 6**	**7%**
Assignment 3	**Assigned Week 9**	**Due Week 10**	**7%**
Assignment 4	**Assigned Week 10**	**Due Week 11**	**8%**
Assignment 5	**Assigned Week 12**	**Due Week 13**	**10%**
Quizzes (10%)			
Quiz 1		**Week 3**	
Quiz 2		**Week 4**	
Quiz 3		**Week 5**	
Quiz 4		**Week 6**	
Quiz 5		**Week 7**	
Quiz 6		**Week 12**	
Mid-term Exam (20%)			
Final Project (30%)			

Note: The above information is subject to change according to the pace of the class.

Grading Scale

A	93-100%
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72%
D	60-69%
F	<59%

Late Policy

The due day/time will be published on the class website when each project is assigned.
No late submissions are allowed, you will get a zero grade if the assignment is not submitted before the due date.

Early Submission

You get bonus points for submitting the assignment before the due date (+3 points for every day). You need to get 80 or more on the assignment in order for those bonus points to be added.

Attendance is mandatory:

There are no makeup exams or quizzes. Also, for every lecture that is missed, you will lose two points from your final grade (e.g. a 90 becomes an 88). The only exceptions are if you notify me prior to your absence with a valid reason. (Sleeping, studying for another class, working on your game, etc., are not valid reasons for an absence.) Class participation will boost your grade if you are on the border. (e. g. It is possible to get an A- with an overall average of 88.5%)

Disabled Student Services

Students with physical, psychological or learning disabilities that affect their ability to perform major life activities associated with this class may be eligible for reasonable accommodations under the Americans with Disabilities Act. If you have a documented disability please contact the Disability Support Services office to arrange for accommodations for this class.

Tentative Schedule (This is a guideline for the semester and is subject to change.)

Week	Topic
1	Introduction to Action Script / Fundamentals
2	Types and Variables
3	Expressions, Statements and Operators
4	Conditionals
5	Iterations
6	Functions
7	**Review and Mid-term**
8	Introduction to OOP / Strings
9	Arrays
10	More on Arrays
11	Movie Clips / Event Handling
12	Collision
13	Animation / Character Behavior
14	**Final Project**

Workload

During the semester there will be one major exam (midterm), several short quizzes and a final project. There will be several programming assignments to work on outside of class. These are not large and you will usually have one to two weeks to complete them (although they generally take no more than a few hours to complete). In addition to attending the lectures, you should plan to spend at least 6 hours per week reading, studying, and programming for this class.

Submitting Homework

Programming assignments will (obviously) use the Actionscript programming language. When submitting source files, you must adhere to the following guidelines: All files must be in a single ZIP archive (even if you are only submitting a single file). The name of the ZIP file must follow this naming convention:

`<class_name>_<login>_<assignment number>.zip`

For example, if a student with login name **`foo.bar`**, submits assignment #3 for course CS116, the appropriate filename would be **`cs116_foo.bar_3.zip`**. Do not put the course section number in the filename.

Note: The .zip file names are case-sensitive and must be in all lowercase, exactly as described above.

Classroom Policy

Students are expected to behave professionally at all times with regards to classroom conduct and timely delivery of all assignments. Specific guidelines will accompany each assignment, along with a completion date. As this is mainly a learning environment, it is critical that the noise level remains at a minimum. Cell phones must be turned off at the beginning of class; cell phone use during class is not permitted. All work in this class must be retained until the end of the semester.

Academic Integrity Policy

Cheating, or academic dishonesty in any form, will not be tolerated in this course. Penalties for cheating may include receiving a zero on an assignment, or a failing grade in the course, or even expulsion from DigiPen. It is permissible to discuss assignments (not solutions) with other students in the class, but the solutions must be recognizably your own. For further details, please consult the DigiPen Academic Integrity Policy.

From The "It-shouldn't-need-to-be-said-but…" Department

During class, all electronic devices must be turned OFF. This includes cell phones, pagers, PDAs, game consoles, digital cameras, laptop computers or any other devices. If you absolutely must have a cell phone on for an emergency situation, you must first clear it with me BEFORE class begins. In addition to showing up for class on time, other student responsibilities include proper behavior during class, learning the material, completing assignments correctly, submitting assignments properly and on time, studying for the exams, and participating in class by asking or answering questions during the lectures. Finally, all students are required to bring a pencil (or other writing instrument) and paper to class to take notes, quizzes, and perform other tasks.