CGT 353
Midterm Exam Review

The midterm exam will consist of ~**75 multiple-choice, true/ false, short-answer, and coding questions worth 1 pt each**, and will account for **15% of your semester grade**. Although there will be no "trick" questions, they are designed so that word-association memorization will not help a great deal in "guessing" the correct answers. However, there is no penalty for guessing -- thus answer every question. You will either know the material or you won't.

Students will be required to choose the best answer for each question using the provided scantron sheets for your answers. For example, consider the following question:

"The most significant limitation on the web today is…."

While there are several possible answers, we are looking for the MOST significant limitation that corresponds to the correct answer.

Text Readings:

- Potentially, all of content in the text and videos that overlaps with the same content areas from the lecture is fair game….but for the most part…only those areas found in both will be included in the exam.

- Exams are designed from the notes.

Suggested Study Protocol:

1. Review the study questions…

2. Focus on the lecture notes more than the texts and videos….

3. For those areas you don't understand, refer to the texts, videos, and online resources.

Remember…..

1. Know your terminology.

2. Know the publish settings in the Flash and HTML tabs forwards and backwards.

3. Make sure you know the audio and video material.

4. Know precedence rules for a) events and b) audio, video, and graphic compression settings.

Primary Topic Areas

- Implications of Flash
- Flash Basics
- Selections and Transformations
- Drawing & Painting Tools
- Working with Text
- Symbols
- Sound and Audio
- 2D Animation and Effects
- Intro to 2D Character Animation
- Video and Flash
- Testing, Integration, and Distribution
- Optimization
- Intro to ActionScript
- Intro to Basic Programming with ActionScript
- Scripting Basics and Refresher

Secondary Topic Areas

- Where Flash came from and how it has developed
- Pros, cons, and basic fundamentals of Web delivery
- Vector and raster graphics and their relationship to Flash
- Types of tweens and their limitations
- Know what font mapping is
- Timeline and frame basics
- Drawing elements and basic tools
- Creating and modifying drawings and shapes
- Use and types of text (know how to identify them and how they are used)

- HTML text support (know what tags are supported)
- Benefits, properties, and types of symbols (movie clips, graphics, buttons, know what the registration and origin points are)
- Understand the difference between a symbol and the instance of a symbol
- Understand the "rules" for nested symbols (can put "this" in "that", but not "these" in "those")
- Properties and advantages of libraries
- Understand the relationship between the library settings and publish settings
- Understand the difference between common and shared libraries
- Understand the relationship between fonts, font symbols, and shared libraries
- Types of graphics to use, when to use them, and their properties
- Basics of digital and analog audio (samples, sampling rate, etc…)
- Ideal audio formats and settings for multimedia
- Know when to use what types of compression and how it relates to the audio settings in both "publish settings" and the library
- Know the differences between event and streaming sounds and when they should be utilized
- Primary animation timeline tools (onion skins, edit multiple frames, etc…)
- Applying mask layers
- Flash animation basics and critical concepts
- Video basics
- Types of video compression
- Methods for importing video and the import video dialogue panel
- Understand the relationship between Import video dialogue box components and video quality and dimensions
- Methods for publishing a Flash file
- Know properties, specifics, and limitations of various export formats (Projector, QuickTime, etc…)

- Components of export movie and how they effect movie quality
- Cross platform issues
- Properties of Publish settings
- Various methods and techniques for movie optimization (graphics, audio, video, movies, etc…)
- Difference between streaming and progressive download technology
- Properties of File Size Report and the Bandwidth Profiler
- Basic optimization tools (smooth, straighten, optimize)
- ActionScript terminology and application
- Know the three basic objects and the two primary events they can react to.
- Understand the correct paradigm of ActionScript coding
- Know the two basic type of programming errors and which is the more common
- Understand where to put comments
- Know what a target is and how it is reached
- Understand the difference between absolute and relative targets
- Understand HOW to target objects
- Know how to create listeners
- Know the basic event model

CGT 353: Principles of Interactive and Dynamic Media
Midterm Examination: Possible Questions

1. Can you tween two elements on the same layer?

2. What does bit depth control in terms of audio in Flash?

3. What is an **Integrated Development Environment**?

4. What is a runtime environment?

5. What are the three runtime environments used for making Flash apps?

6. What is bit deph control in audio and images?

7. What are scenes used for?

8. What general format does Flash store an audio file once it's been imported?

9. What kinds of audio compression schemes can Flash export?

10. What does audio bit rate control?

11. What percentage of Web browsers have the Flash plugin?

12. What are the advantages of using Flash? What are the disadvantages?

13. What were vector graphics originally created for?

14. What is the definition of "scalability" and "resolution independence?"

15. What are the four basic types of projects can you create with Flash?

16. How do the audio settings in the library and publish settings play off each other? Which has precedence in which instance?

17. What are shape hints?

18. What are onion skins and what are they used for?

19. What is the difference between a stage object and an overlay object?

20. What is the Bandwidth Profiler? What is a File Size Report?

21. What types of graphics are best used in Flash?

22. What types of audio is best used in Flash?

23. What is trace bitmap allow you to do and how does it work?

24. What kinds of symbols are there?

25. What are instances? What are instance names?

26. What is the registration point of a symbol?

27. When should you use specific types of symbols?

28. How do you swap symbols?

29. What are nested symbols?

30. What are libraries? What are shared runtime libraries and how do you utilize them?

31. How do you share and embed fonts?

32. What is a linkage identifier?

33. How do you create a link in AS?

34. How do you load images and swf's in AS 2? In AS3?

35. What fps are movies, animations, and video shot at?

36. What are concepts critical to effective animation?

37. What is limited animation and how is it used?

38. What are phonemes?

39. What is sampled audio?

40. What is synthesized audio?

41. What is sampling rate and how is it calculated?

42. When should you used sampled audio at specific Kilohertz ranges?

43. When should you used sampled audio at specific bit depth?

44. What is a PCM file?

45. What types of audio files does Flash support?

46. What types of audio compression will Flash export?

47. What is the relationship of bit rate and quality to quantization and subsampling?

48. What are the guidelines for syncing sound?

49. What is the difference between event and streaming sound? How do they work and when should they be used?

50. What is “stop sync” and “start sync”?

51. What is “interleaving”?

52. How do you loop sounds?

53. What is the difference between concurrent and compatibility testing?

54. What are the different formats with which you can publish a Flash file?

55. What is a projector?

56. Why is Quicktime a good format to export to?

57. What cross-platform issues might you have when publishing for MAC or PC?

58. When are <object> tags used? When are <embed> tags used?

59. What does the classid attribute used for? The codebase attribute?

60. What is the difference between streaming and progressive download?

61. What are pointers?

62. What are the guidelines for optimizing your Flash files?

63. What are the guidelines for optimizing your audio and images?

64. What are the types of text you can use in Flash?

65. Which of the following text types can be directly changed and manipulated by the end-user at runtime?

66. How do you access a variable declared in a text field?

67. What are the difference between text blocks and text labels?

68. Can flash support HTML tags?

69. What are the pros and cons of embedding fonts?

70. What is easing?

71. Which symbols cannot respond to events?

72. What is the single biggest advantage of Flash?

73. What video codecs does Flash use in it's players?

74. What types of video can Flash import?

75. What are **cue points**?

76. What video advances have been made with the latest version of Flash?

77. What are common digital video formats used?

78. What is the difference between spatial and temporal video compression?

79. What are delta frames? What are video keyframes?

80. What is the difference between embedding, streaming, and linking video?

81. What happens when you add more video keyframes?

82. What does **strict data typing** refer to?

83. How do you declare a variable?

84. How do you author scripts externally in Flash?

85. What are the general AS precedence rules?

86. What are global, local, and timelines variables?

87. What are event handlers?

88. What are the primary events and objects that AS can respond to?

89. What are the shared features of all Flash API's?

90. What can you write AS with?

91. How is AS compiled? What are the steps?

92. What are classes? What are packages? Objects?

93. What are the biggest syntax issues? Programming issues?

94. Is AS case-sensitive? All of it?

95. What is the importance of commenting?

96. How do you target clips on the stage?

97. What is the difference between relative and absolute targets?

98. What is "this" used for? How?

99. How is event handling different in AS 2.0 and 3.0?

100. Which other programming/ scripting languages share a similar syntax with ActionScript?

101. Which version of ECMAScript is ActionScript 3.0 based on?

102. Does ActionScript have single-threaded or multiple-threaded execution model? In either case, what is an execution model?

103. Which version (AS 2.0 or AS 3.0) is likely to throw more errors?

104. What is an **API**? What features do all Flash API's share?

105. What is the **ActionScript Virtual Machine**? What is the **latest version**? How much faster is the latest version from previous versions?

106. Which version of ActionScript uses an underscore to describe properties?