Multimedia Computing
CIS 52

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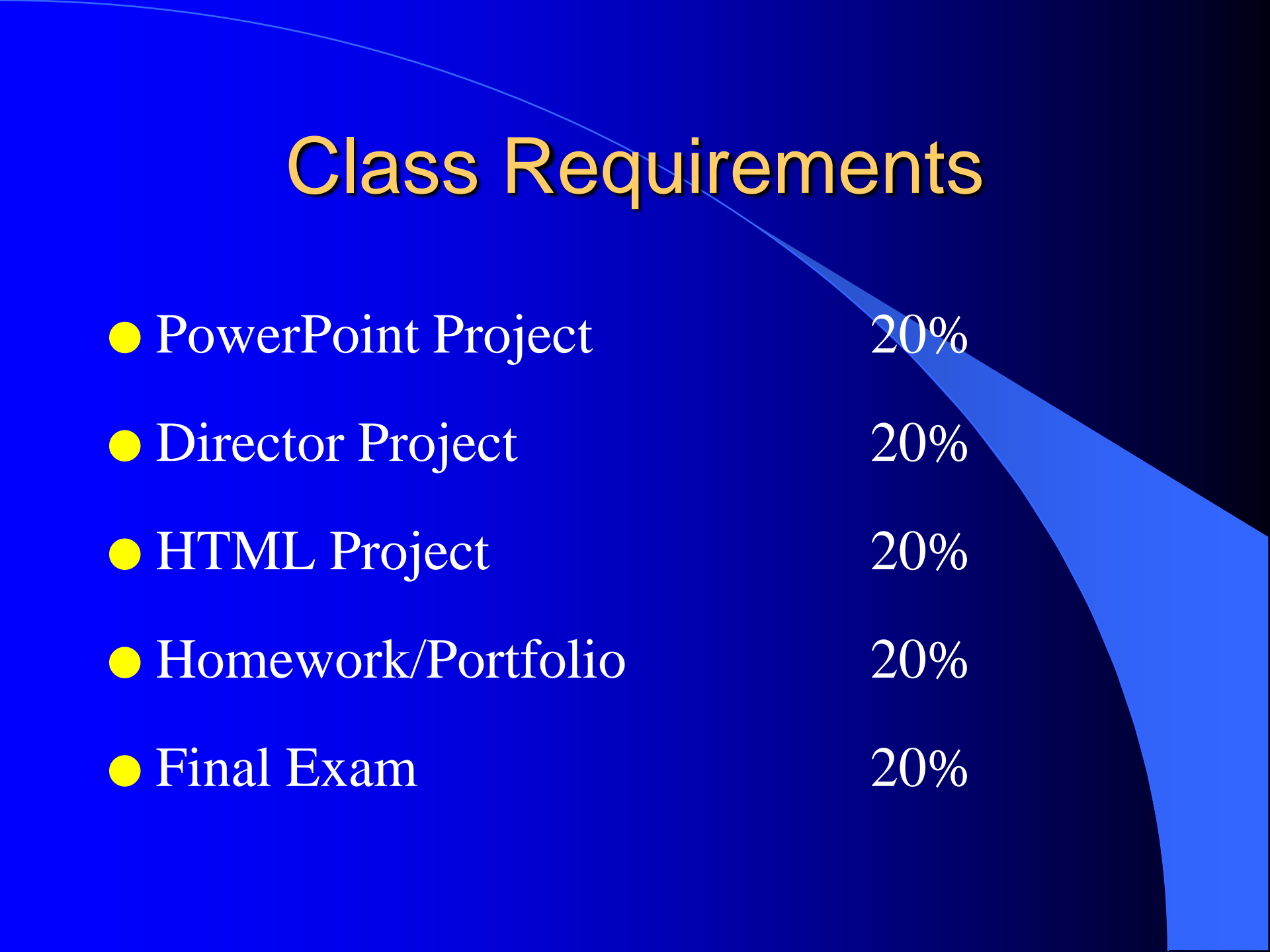http://eilat.sci.brooklyn.cuny.edu

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Multimedia Computing

- Prerequisites: CIS 5.2 *and* CIS 13.2 or CIS 22

- Required Texts:

  - *Multimedia: Making it Work, 7th edition*, Tay Vaughn, McGraw Hill, 2006
  - *Macromedia Director MX 2004*, Johnson, Steven M., Course Technology, 2005
  - Biweekly readings from *PC Magazine*

Class Requirements

- PowerPoint Project 　　　　20%

- Director Project 　　　　　20%

- HTML Project 　　　　　　20%

- Homework/Portfolio 　　　20%

- Final Exam 　　　　　　　20%

Definition

Multimedia

An integration of *continuous* media (like video) and *discrete* media (like text, graphics, images) through which *information* can be conveyed to the users in an *appropriate*, more *attractive* and *instructive* manner.

Applications

- Interactive videodisk

- Electronic games

- Hypermedia browsers

- Presentation systems

- Authoring systems

Applications

- Mail systems

- Desktop video systems

- Desktop conferencing systems

- Multimedia services

- Video on demand

Brief History

- 1972   Pong video arcade game
- 1977   Atari home video games
- 1978   Apple II
- 1981   IBM PC & MSDOS
- 1982   MIDI standard, Nintendo
- 1984   Macintosh, Virtual reality

Brief History

- 1985   Intel 80386,
  CD-ROM format,
  Windows 1.0

- 1986   Grolier Electronic Encyclopedia,
  Commodore Amiga,
  Harvard Graphics Presentation
  Package

Brief History

- 1987   Microsoft Bookshelf,
  Apple HyperCard
- 1989   Sound Blaster,
  Color LCD projection
- 1990   Virtual Valerie,
  Adobe Photoshop

Brief History

- 1991   World Wide Web,
  MPEG,
  MPC standard,
  QuickTime,
  Adobe Premier video editor

- 1992   Photo CD

- 1993   Mosaic Web browser,
  Myst, 7th Guest and Doom

Brief History

- 1995 Netscape,
        Windows 95,
        Java

- 1996 Microsoft Explorer,
        Active-X

- 1997 ?

Spectrum of Interactivity

- Neighbor's radio
- Broadcast television program
- Movie or VCR tape
- Movie on CD-ROM or laser disk
- Hypermedia links on PC or network
- Virtual reality
- Create media
- Interact with people in real time

Measuring Interactivity

- Number of interactions per hour
- Delay between making selection and seeing or hearing result

  People can tolerate no more than 1/4 second delay in phone conversations

Typical number of interactions/hour

- Over 36,000   Virtual reality
- 3,600   Playing a video game
- 1,000   Face to face conversation
- 600   Telephone conversation
- 30   Searching a database
- 20   Playing chess
- 12   Watching a movie
- 0.05   Attending a college lecture
- 0.007   Playing chess by postcard
- 0.001   Exchanging occasional letters