Nova Southeastern University

Graduate School of Computer and Information Sciences
Course Syllabus

MCIS/MMIS 681 Multimedia Systems (3 credits)
Term Dates: Spring Term 2008 (March 31 - June 20, 2008) – online
Class Location and Format: This is an online, Internet based course using NSU’s WebCT.

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Course Description

Multimedia Systems: Introduction to multimedia systems. Definition of terms and concepts related to multimedia. Trends in the development and the use of multimedia. Tools, techniques, and guidelines facilitating the planning, design, production, and implementation of multimedia products.

Required Textbook

Title: Multimedia: Making it Work
Author: Vaughan, T.
ISBN: 0-07-226451-9
Edition: 7th, 2008
Publisher: McGraw-Hill

Exit Competencies

Upon completion of this course, the student will have proficiency in the following:

- Plan, develop, and document a professional-grade multimedia product that can be used to educate, sell, or inform.
- Identify and analyze the technological impediments to multimedia production and distribution.
- Identify and analyze the strengths and weaknesses of multimedia-enhanced educational products.
- Evaluate and critique multimedia productions.
- Analyze the current status of multimedia production and distribution systems and predict future advances and implementations.
Required Software

The student is expected to have access to two different programs that can be used to author a multimedia product. The programs include Macromedia Director or Authorware, Toolbook, Microsoft PowerPoint or even an html editor such as Dreamweaver. In addition to the authoring software, the student will need access to editing programs for graphics, sounds, video, and animation. Several serviceable programs are available as freeware or shareware.

Outline of Course Requirements

The student will be responsible for mastering the following material by the end of the term through a combination of lectures, textbook, projects, and independent research.

1. What is and is not multimedia
2. Planning a multimedia product
   - The multimedia team
   - Planning process and tools
   - Documentation
3. Developing multimedia
   - Hardware suite
   - Software suite
4. Creating and editing media elements
   - Sounds
   - Videos
   - Animations
   - Graphics
   - Interactivity
5. Authoring multimedia
   - Authoring systems
   - Paradigms used for authoring
6. Distributing multimedia products
   - Considerations when distributing via CD
   - Considerations when distributing via the World Wide Web
   - Distributing via a network
Assignments

There are three assignment blocks that contain four types of learning experiences used in this course: discussion forum contributions, technical briefs, media-enhanced tutorials, and a final exam. A description of each type of learning experience follows. The assignment schedule provides specific due dates and other requirements for the three assignments.
Discussion Forum Contribution

1. There are three (3) discussion topics.

2. Each discussion topic is worth 5 points for a total of 15 points (15% of the course grade) can be earned on this type of learning experience.

3. All contributions must be made in the applicable discussion forum queue in WebCT.

4. All contributions must be made during the specified time period for the topic. Contributions made before or after the specified period will not be accepted.

5. The primary goal for the discussion forum assignment is to simulate free give-and-take of ideas among peers that is typically experienced in graduate courses delivered in the more traditional, face-to-face environment. Evaluating a student’s performance on the assignment is not, therefore, very concrete. There are a number of factors that impact the quality of a student’s participation. The content of the contributions is, of course, one rather obvious factor, but the context in which the contributions have been made is equally important. In evaluating performance on this assignment, the following factors will be considered:

   1. Add value to the content of the discussion by posting well-written, on-topic contributions
   2. Share resources with others by providing support for your contributions from the literature
   3. Promote peer-to-peer discourse by:
      1. Actively participating throughout the period of the forum
      2. Initiating topics for discussion
      3. Responding to postings of others in a timely manner
   4. Note: There really is no way to quantify the relative weightings of the above listed factors. The grade on this assignment is based upon the overall quality of your participation, as described by the synthesis of the three factors listed above.

6. As a graduate student you are expected to be proficient in the use of the English language. Errors in grammar, spelling, or syntax will affect your grade. As your professor, I will not provide remedial help for writing problems. If you are unable to write clearly and correctly, I urge you to contact the program office for sources of remedial help.

7. Refer to the assignment schedule for specific topics and starting and ending dates for the forums.

Technical Briefs

1. You will be responsible for 3 technical briefs, each of which is worth 10 points for a total of 30 points on this type of learning activity.
2. Each brief will consist of a short, three (3) to four (4) page, double-spaced paper. The brief must be supported by at least 5 references from current, peer-reviewed sources (journal articles or conference proceedings).

3. The Publication Manual of the American Psychological Association (Fifth Edition) should be used as a guide for form, style, and general writing principles in the preparation of these briefs.

4. The briefs will be evaluated on the basis of content and quality of writing. I expect graduate-level work on this and all assignments and will fail any submission that contains grammatical errors, misspellings, poor organization, or inadequate research.

5. Refer to the assignment schedule for specific topics and due dates for the technical briefs.

Media-Enhanced Products

1. Two (2) media-enhanced products are required. Each product is worth 20 points for a total of 40 points.

2. There are three different paradigms followed in multimedia authoring systems: card/page based, icon based, and time based (see Chapter 11 in your text). You must use a different authoring system paradigm for each of your media-enhanced products. For example, if you use a page based authoring system for the first product, you will need to use either an icon or time based system for the second. Demonstration versions of several of the more popular authoring systems are available on the CD that accompanies the course text.

3. One of the biggest challenges in developing multimedia products lies in problems with distribution. Often, products that work perfectly on the machine on which they were developed fail to run or perform erratically on other computers. You are responsible for developing products that are distribution-ready. For the purposes of this course, distribution-ready means:
   - Submitted as either a compressed (zipped) file via the WebCT Assignment Dropbox or as a Web page with the url submitted in the WebCT Assignment Dropbox.
   - If submitted as a compressed file, the file must include all the necessary runtime software to make the product executable.
   - If submitted as a Web page, the page must be loaded either on your server or on a special server available at my work. If you do not have access to a Web server let the instructor know and directions will be given for accessing the server available for this class at my work.

4. Each media-enhanced product must be interactive and include media elements from at least three media families (i.e. text, graphics, animations, sounds, videos, color, etc.)

5. Each media-enhanced product must be accompanied by three elements of written documentation: a requirements specification, navigation map, and storyboards. The Planning Documents section of the course’s WebCT site contains brief descriptions of these items of documentation.
6. Multimedia presentations will be evaluated on the basis of:
   - Content (25%)
   - Flow (25%)
   - Documentation (25%)
   - Effectiveness, quality, and appropriateness of the media elements used (25%)

7. Refer to the assignment schedule for specific topics and due dates for the media-enhanced products.

Final Exam

1. A total of 15 points (15% of the course grade) can be earned on this assignment.
2. This exam will be content-based and may cover any of the material listed in the Outline of Course Requirements.
3. During the last week of the term you will be given access to the final exam in the WebCT Examinations area.

Assignment Schedule

Note: All assignments are due no later than 11:55 p.m., Eastern Daylight Time on the date indicated.

Assignment Block 1: Introduction to Multimedia, Discrete Media (March 31, 2008 – April 27, 2008)

1. Reading assigned: Chapters 1, 2, 3, 4, & 6
2. Discussion forum topic: Do multimedia enhancements actually add value to a product? Be sure to not only present your opinion, but to also provide support for it, preferable through citations from the literature.
3. Technical Brief and Media-Enhanced Product Topics: Choose from the following list a topic for your technical brief and a different topic, from a different numbered group, for your media-enhanced product.
   1. What is and is not multimedia
   2. Examining media elements: text. Example topics include:
      - Characters and fonts
      - Layout and placement
   3. Examining media elements: colors. Example topics include:
      - Producing colors
      - Effective use of color
   4. Examining media elements: graphics. Example topics include:
      - Bitmapped vs. vector
• Pictures vs. graphics
• Compression algorithms
• Strengths and weaknesses of popular graphic file formats (i.e. gif, jpg, png, bmp, tif, etc.)
• Selecting the correct graphic format

Assignment Block 2: Continuous Media (April 28, 2008 – May 25, 2008)

1. **Reading assigned:** Chapters 5, 7, & 8

2. **Discussion forum topic:** What are the major impediments to effectively using media elements and multimedia. Again, be sure to not only present your opinion, but to also provide support for it, preferable through citations from the literature.

3. **Technical Brief and Media-Enhanced Product Topics:** Choose from the following a topic for your technical brief and a different topic, from a different numbered group, for your media-enhanced product.

   1. Examining media elements: sounds. Example topics include:
      • Analog vs. digital
      • Digitizing sounds
      • Synthesizing sounds
      • Selecting the correct sound format

   2. Examining media elements: videos. Example topics include:
      • Analog vs. digital
      • Codecs and compression
      • Streaming video
      • Selecting the correct video format

   3. Examining media elements: animation. Example topics include:
      • Cell versus computer animation
      • Animation techniques
      • Making animations appear natural

Assignment Block 3: Producing Multimedia (May 26, 2008 – June 20, 2008)

1. **Reading assigned:** Chapters 9, 10, 11, 15, 16, & 18

2. **Discussion forum topic:** Although beauty may indeed be in the eye of the beholder, ugly is usually pretty easy to spot. What factors separate good (effective, productive) use of multimedia from bad (ineffective, or counterproductive) use of multimedia?

3. **Technical Brief Topics:** Choose from the following list a topic for your technical brief.

   1. Developing multimedia. Example topics include:
• Hardware suite
• Software suite

2. Planning a multimedia product. Example topics include:
  • The multimedia team
  • Planning process and tools
  • Documentation

3. Authoring multimedia. Example topics include:
  • Authoring systems
  • Paradigms used for authoring

4. Distributing multimedia products. Example topics include:
  • Considerations when distributing via CD
  • Considerations when distributing via the World Wide Web
  • Distributing via a network

4. Final Exam

Grading Criteria

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School and University Policies and Procedures:

Students must comply with the policies published in the school’s Graduate Catalog and the NSU Student Handbook, some of which are included or referenced below. The catalog is at http://www.scis.nova.edu/NSS/pdf_documents/Catalog.pdf. The handbook is at http://www.nova.edu/cwis/studentaffairs/forms/ustudenthandbook.pdf.

1. Standards of Academic Integrity

   For the university-wide policy on academic standards, see the section Code of Student Conduct and Academic Responsibility in the NSU Student Handbook. Also see the section Student Misconduct in the GSCIS catalog. Each student is responsible for maintaining academic integrity and intellectual honesty in his or her academic work. It is the policy of the school that each student must:

   • Submit his or her own work, not that of another person
   • Not falsify data or records (including admission materials and academic work)
   • Not engage in cheating (e.g., giving or receiving help during examinations; acquiring and/or transmitting test questions prior to an examination; or using unauthorized materials, such as notes, during an examination)
   • Not receive or give aid on assigned work that requires independent effort
   • Properly credit the words or ideas of others according to accepted standards for professional publications (see the next section Crediting the Words or Ideas of Others)
   • Not use or consult paper writing services, software coding services, or similar services for the purpose of obtaining assistance in the preparation of of materials to be submitted for course assignments or for theses or dissertations.
   • Not commit plagiarism (Merriam-Webster’s Collegiate Dictionary (2004) defines plagiarism as “stealing or passing off ideas or words of another as one’s own” and “the use of a created production without crediting the source.”) (see Crediting the Words or Ideas of Others below)

Crediting the Words or Ideas of Others

When using the exact words of another, quotation marks must be used for short quotations (fewer than 40 words), and block quotation style must be used for longer quotations. In either case, a proper citation must also be provided. Publication Manual of the American Psychological Association, Fifth Edition, (2001, pp. 117 and 292) contains standards and examples on quotation methods.

When paraphrasing (summarizing, or rewriting) the words or ideas of another, a proper citation must be provided. Publication Manual of the American Psychological Association, Fifth Edition (2001) contains standards and examples on citation methods (pp. 207-214) and reference lists (pp. 215-281). The New Shorter Oxford English Dictionary (1993) defines paraphrase as “An expression in other words, usually
fuller and clearer, of the sense of a written or spoken passage or text...Express the meaning (of a word, phrase, passage, or work) in other words, usually with the object of clarification...”. Changing word order, deleting words, or substituting synonyms is not acceptable paraphrasing—it is plagiarism, even when properly cited. Rather than make changes of this nature, the source should be quoted as written.

Original Work

Assignments, exams, projects, papers, theses, dissertations, etc., must be the original work of the student. Original work may include the thoughts and words of others but such thoughts or words must be identified using quotation marks or indentation and must properly identify the source (see the previous section Crediting the Words or Ideas of Others). At all times, students are expected to comply with the school’s accepted citation practice and policy.

Work is not original when it has been submitted previously by the author or by anyone else for academic credit. Work is not original when it has been copied or partially copied from any other source, including another student, unless such copying is acknowledged by the person submitting the work for credit at the time the work is being submitted, or unless copying, sharing, or joint authorship is an express part of the assignment. Exams and tests are original work when no unauthorized aid is given, received, or used before or during the course of the examination, reexamination, and/or remediation.

2. Writing Skills

Students must demonstrate proficiency in the use of the English language. Grammatical errors, spelling errors, and writing that fails to express ideas clearly will affect their grades and the completion of their academic programs. The faculty will not provide remedial help concerning grammatical errors or other writing difficulties. It is the student’s responsibility to proofread and edit his or her work which, in both form and content, should be letter-perfect. Work that is not properly edited will be rejected. It is university policy that students must submit their own work, not that of another person. Consequently, they should refrain from using outside editors to redo their work.

3. Disabilities and ADA

NSU complies with the American with Disabilities Act (ADA). The university’s detailed policy on disabilities is contained in the NSU Student Handbook. Student requests for accommodation based on ADA will be considered on an individual basis. Each student with a disability should discuss his or her needs with the GSCIS disability service representative, Candy Fish (call 954-262-2034, or email fishe@nova.edu) before the commencement of classes if possible.

4. Communication by Email

Students must use their NSU email accounts when sending email to faculty and staff and must clearly identify their names and other appropriate information, e.g., course or program. When communicat-
ing with students via email, faculty and staff members will send mail only to NSU email accounts using NSU-recognized usernames. Students who forward their NSU-generated email to other email accounts do so at their own risk. GSCIS uses various course management tools that use private internal email systems. Students enrolled in courses using these tools should check both the private internal email system and NSU’s regular email system. NSU offers students web-based email access. Students are encouraged to check their NSU email account and their course management email daily.

5. The Temporary Grade of Incomplete (I)

The temporary grade of Incomplete (I) will be granted only in cases of extreme hardship. Students do not have a right to an incomplete, which may be granted only when there is evidence of just cause. A student desiring an incomplete must submit a written appeal to the course professor at least two weeks prior to the end of the term. In the appeal, the student must: (1) provide a rationale; (2) demonstrate that he/she has been making a sincere effort to complete the assignments during the term; and (3) explain how all the possibilities to complete the assignments on time have been exhausted. Should the course professor agree, an incomplete contract will be prepared by the student and signed by both student and professor. The incomplete contract must contain a description of the work to be completed and a timetable. The completion period should be the shortest possible. In no case may the completion date extend beyond 30 days from the last day of the term for master’s courses or beyond 60 days from the last day of the term for doctoral courses. The incomplete contract will accompany the submission of the professor’s final grade roster to the program office. The program office will monitor each incomplete contract. If a change-of-grade form is not submitted by the scheduled completion date, the grade will be changed automatically from I to F. No student may graduate with an I on his or her record.

6. Grade Policy Regarding Withdrawals

Course withdrawal requests must be submitted to the program office in writing by the student. Requests for withdrawal must be received by the program office by the calendar midpoint of the course (see dates in the academic calendar in the catalog and program brochures or websites). Withdrawals sent by email must be sent from the student’s assigned NSU email account. Requests for withdrawal received after 11:59 p.m. EST on the withdrawal deadline date will not be accepted. Failure to attend class or participate in course activities will not automatically drop or withdraw a student from the class or the university. Students who have not withdrawn by the withdrawal deadline will receive letter grades that reflect their performance in the course. When a withdrawal request is approved, the transcript will show a grade of W (Withdrawn) for the course. Students with four withdrawals will be dismissed from the program. Depending on the date of withdrawal, the student may be eligible for a partial refund (see the appropriate catalog section Refund Policy Regarding Withdrawals).

7. Acceptable Use of Computing Resources
Students must comply with the university’s Policy on Acceptable Use of Computing Resources (see NSU Student Handbook).

8. Academic Progress, Grade Requirements, and Academic Standing

Students must be familiar with the school’s policies which are contained in its catalog.

9. Student Research Involving Human Subjects

Students must be familiar with the university’s policy (see paragraph in catalog).

10. Responsibility for Payment of Tuition and Fees

Once registered, students are personally responsible for the payment of their tuition and fees. Returned checks, cancelled credit cards, employer or agency refusal to pay, ineligibility for financial aid, and other reasons for non-payment may result in a direct bill to the student, and/or referral to a collection agency.

Payment and refund policies are based on the view that a student registering for a class is reserving a place in that class and that tuition and fees cover the opportunity to secure that place in the class. Since no other person can purchase that place, the student is responsible for the tuition and fees associated with it. Simply not attending does not constitute a reason for non-payment.