

**Johns Hopkins University,
School of Professional Studies in Business and Education,
Graduate Division of Education**

**Instructional Design of Multimedia
893.564.9M**

(Spring Semester, 2006, Wood Middle School)

Instructor: Demetri M. Orlando
Phone: 301-841-2175 (work) 240-731-7937 (cell - do not call after 9pm)
Credit Hours: 3
Class Time: Wednesdays: 5:00-7:00 PM, 1/25-5/3
Office hours: Call or email to set up a time, either face to face or online
Course web site: <http://osp-pilot.library.jhu.edu/portal>
Library web site: <http://www.library.jhu.edu/eresources/>

Course Description: Participants investigate principles of design, development, and evaluation of instructional materials that ensure effective teaching and learning. Participants use multimedia authoring tools to create learning materials for K-12 instruction. Participants plan and develop multimedia projects that incorporate technology into existing or new instruction and address issues of usability, differentiation, accessibility, cultural diversity, and performance-based assessment.

Enduring Understandings (the “big ideas” of this course):

- People learn best when they are interested and engaged in solving an authentic problem.
- There are a variety of instructional design models consistent with various pedagogical approaches.
- Multimedia technologies are an increasingly powerful tool for supporting the learning process.
- Creating an engaging multimedia learning environment requires understanding: learning, instruction and multimedia.
- A systematic approach to instructional design results in more effective learning outcomes.

Course Objectives:

- Demonstrate independent ability to use multimedia authoring tools including image capture and editing, video editing, animation, presentation, screen-capture, website, and desktop publishing.
- Identify and discuss relevant issues and approaches related to the application and practice of the instructional design process, including theoretical models and practical research in the instructional design literature.
- Explore the role of usability, accessibility, differentiation, developmental appropriateness, and cultural diversity in the multimedia design process.
- Demonstrate the systematic application of instructional design concepts and principles (including ADDIE and UBD models) in the planning of an instructional module incorporating multimedia for specific content learning goals.
- Demonstrate collaborative project management skills online and f2f as you create a project timeline, storyboard, interface design, development, and review process.

Required Text

There is no required text for this course; however, Smith (2005), *Instructional Design*, is highly recommended. Course readings will be drawn from a variety of sources (bibliography below.)

Absence and Lateness Policy: Prompt attendance at all class sessions is expected. Each student may request one excused absence any reason agreed upon between the student and instructor. Please communicate with me in advance of any absence. Unexcused absences will result in a 10 point deduction off the final grade. If you have exceptional circumstances, please discuss them with me and an alternative assignment may be used to help make up points. Being late for class will also result in grade point deductions. Arrival at class more than 20 minutes late will count as tardy. Two tardies will count as one absence.

Assignments

Demonstrate in-class competence with software & hardware

- IrfanView image editing (PhotoShop preferred)
- Digital Cameras & Scanners
- Digital Video Camera
- Digital Video Editing (MovieMaker)
- Flash animation
- Dreamweaver website authoring
- MediaWiki website authoring
- Inspiration concept-mapping
- Microsoft Publisher
- Other software as identified by participants

Class Participation (10 points)

Prompt attendance and active participation in face-to-face classes is essential to making this a valuable learning experience.

Online Communication (10 points)

Email, discussion boards, and synchronous sessions are all important to making this course a success. These will be assigned during class sessions. If you miss class, it is your responsibility to find out if any assignments were given. Learning to negotiate and accomplish shared goals through online communication is also essential.

Article Summary (5 points)

Exploring the research base is an important aspect of any graduate class. Each student will search the Hopkins Libraries online database of journals to locate a research article relevant to his/her area of study. Students will post a two-paragraph summary of article to class web site. First paragraph will describe the study, second paragraph will discuss relevance.

Design Planning Document (30 points)

Each individual student will produce a written document based on the instructional design process (ADDIE and UBD design models). This document will detail plans for 4 hours of instruction. The goal of this instruction should be some type of cognitive, emotional, verbal, intellectual, or psychomotor skill. Topics should include a discrete skill or content area that the student is familiar with in order to fully plan the instructional module.

Multimedia Design Project (30 points)

Each student will be responsible for translating one of his or her instructional modules from the design document into a multimedia format. This project will be presented at the end of the semester. The

platform and specific design will be taken from your design document. You can use any platform to convey your idea (web editors, authoring tools, PowerPoint, online learning communities). Projects should be a minimum of 5 screens to establish flow.

Project Outline for Multimedia Project – (10 points)

Each student will submit a Project Outline for the Multimedia component. Outlines should include elements of the production process.

Presentation of Multimedia Project – (5 points)

Each student will present their project to the class at the end of the semester. Presentation should describe the student’s learning process while engaged in the project.

Evaluation and Grading

Point totals correspond to letter grades as follows:

94-100 A

90-93 A-

88-89 B+

84-87 B

80-83 B-

78-79 C+

70-77 C

0-69 F

I = Incomplete (will only be given if agreed upon prior to the last class meeting)

Classroom Accommodations for Students with Disabilities

If you are a student with a documented disability who requires an academic adjustment, auxiliary aid, or similar accommodation, please contact Ann Harrell in the Office of Student Affairs at 410-872-1210 or via e-mail at harrell@jhu.edu. If you need course adaptations or accommodations because of a disability or need special arrangements, please inform instructor so that arrangements can be made.

Supplemental Reading List

Class readings will be provided in the online course. See bibliography below. Additional readings will be provided online, linked from within the course website. Readings will be assigned during class sessions. If you miss class, it is your responsibility to find out if any assignments were given.

Bibliography

- Armstrong, A. (2004) *Instructional design in the real world*. Hershey, PA: Idea Group, Inc.
- Alessi, S. & Trollip, S. R. (2000). *Multimedia for learning: Methods and development* (3rd ed.). Allyn & Bacon, Inc.
- Brinck, T., Gergle, D. & Wood, S. (2002) *Designing web sites that work: Usability for the web*. San Francisco: Academic Press.
- Dick, W., Carey, L. & Reed, J. (2000). *The systematic design of instruction* (5th ed.). Pearson Education.
- Driscoll, M. & Carliner, S. (2005). *Advanced web-based training strategies: Unlocking instructionally sound online learning*. San Francisco: Pfeiffer
- Gagne, R.M., Briggs, L. & Wagner, W. (1992). *Principles of Instructional Design* (4th ed.). Holt, Rinehart & Winston, Inc.
- Ivers, K. & Barron, A. (2002). *Multimedia Projects in Education* (2nd ed.). Westport, CT: Greenwood Publishing Group.
- Krug, S. (2000). *Don't make me think: A common sense approach to web usability*. Indianapolis: Macmillan.
- Jonassen, D. (2004). *Learning to solve problems: An instructional design guide*. San Francisco: Pfeiffer.
- Lee, W. & Owens, D. (2004). *Multimedia based instructional design: Computer based training, web training and distance learning* (2nd ed.). Hoboken, NJ: John Wiley and Sons, Inc.
- Morrison, G., Ross, S. & Kemp, J. (2004). *Designing effective instruction*. Hoboken, NJ: John Wiley and Sons, Inc.
- Rabinowitz, M., Blumberg, F. & Everson, H. (2004). *The design of instruction and evaluation: Affordances of using media and technology*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Smith, P. L. & Ragan, T. J. (2005). *Instructional design* (3rd ed.). Hoboken, NJ: John Wiley & Sons Inc.
- Vaughan, T. (2003). *Multimedia: Making it work*. (6th ed.). McGraw-Hill Professional.

Course Schedule

(please note, this schedule is subject to change based on the needs of the class)

1. 1/25 Introductions, intro to course materials and assignments; using the course website
Lab: IrfanView image editing; Inspiration concept-mapping (KW chart)
2. 2/1 Instructional design models (Gagne, ADDIE, UBD); accessing JHU library resources
Lab: scanners & digital cameras
3. 2/8 Online asynchronous class: students submit project ideas to instructor via e-mail, receive feedback and exchange until project approval. Article summaries due.
4. 2/15 Learner characteristics, problem analysis
Lab: digital video editing
5. 2/22 Task analysis
Lab: digital video editing, website authoring with Dreamweaver
6. 3/1 Online class: Instructional analysis
7. 3/8 Objectives (terminal & enabling, ABC) and assessment
Lab: Dreamweaver
8. 3/15 Instructional strategies
Lab: Flash. 1st draft of paper due.
9. 3/22 Media decisions
Lab: improve Inspiration maps?
10. 3/29 ONLINE synchronous conference: schedule an individual online conference with instructor Multimedia outline due prior to conference
11. 4/5 Accessibility issues, universal design, usability testing, formative evaluation
12. 4/12 No class (MCPS spring vacation)
13. 4/19 Course concepts review [Passover] ONLINE?
Lab time to work on projects
14. 4/26 Final draft of paper due; project due; class presentations of projects; Tsantis Visit; course evaluation
15. 5/3 Class presentations, (MICCA conference) ONLINE?