

EST 573 Design of Multimedia Courseware  
3 credits

|              |                       |           |                    |
|--------------|-----------------------|-----------|--------------------|
| Instructor   | Tony Scarlatos        | Phone     | 631 632 8432       |
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| Office Hours | By appointment        | Mtg. Time | M/W 5:30 – 9:30    |

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**Text:**

“Educating the Net Generation”

<http://www.educause.edu/educatingthenetgen>

**Description:**

Course material covers the process of developing educational software from design through execution and field-testing. Digital media tools, authoring systems, and novel interface technologies are explored. Computer-human interaction and instructional design concepts are emphasized. An overview of programming, databases, and networks is provided. Research, commercial, and legal aspects of software development are also discussed.

Students must complete an educational software application development and implementation plan as their term project. In class-exercises will help them to produce their presentation/documentation. Collaborative proposals (no more than 3 students) are acceptable.

Summer Session I, 2006, 3 credits, Letter graded (A, A-, B+, etc.)

Prerequisite: EST 570

**Goals:**

To comprehend the process of developing educational software, and the tasks, skills, and tools required. A minimum-to-moderate proficiency with some digital media tools and an authoring system is expected by the end of the term.

To be able to conceive and design learning software that leverages the benefits of multimedia computing, including possibly networked applications and new input/output technologies.

### **Requirements:**

Educational software development plan (term project):

Plan should include a profile of target audience(s), description of learning environment(s), task analysis, software flow diagram, storyboard and/or sample screens, sample content, script, lesson plan(s), proposed milestones, review of technology to be used (and rationale), software prototype assessment plan, and a bibliography.

Where possible the development plan should demonstrate that it supports the objectives and meets the criteria for relevant NY State learning standards.

Documentation should be structured with an abstract, introduction, literature review, and the software development proposal and plan. The documentation should contain illustrations, such as photographs and diagrams, and can have appendices as well. Approximate length is 10 - 15 pages.

Presentation:

Students are expected to present their term project in class, as well as submit documentation. The presentation should include a slide show or web site, and can include a poster.

### **Resources:**

Multimedia lab - <http://xsrv.mm.cs.sunysb.edu/>

Class on-line forum - <http://xsrv.mm.cs.sunysb.edu/bboard/>

Class web page - <http://xsrv.mm.cs.sunysb.edu/573/>

Web links - <http://xsrv.mm.cs.sunysb.edu/573/resources/resources.htm>

Lecture material - <http://xsrv.mm.cs.sunysb.edu/573/lectures/573lectures.htm>

### **Evaluation:**

Term projects will be evaluated on thoroughness. Attention should be paid to a good literature review and independent research. A concise and compelling abstract is very important. Although the documentation should be richly

illustrated, illustrations should not be gratuitous or merely decorative. The design, function, and content of the proposed software should flow from an analysis of:

- the learner(s), learning task(s), and objective(s)
- pedagogy for the subject(s) chosen for instruction
- the learning environment(s) and community
- the technology to be used, what it offers that is relevant, its limitations, and the benefits expected in using it
- interface and instructional design guidelines

Project documentation and the presentation should be clean and professional in design. They don't need to be "slick", but they should be high-quality.

Class participation, both in-person and on-line, will be a factor in student evaluations.

### **Course Schedule:**

| <b>Week</b> | <b>Topic</b>         | <b>Required Reading</b>   |
|-------------|----------------------|---|
| 1           | Orientation          |   |
| 2           | Net Generation       |   |
| 3           | CHI                  |   |
| 4           | Instructional Design | <a href="http://xrsv.mm.cs.sunysb.edu/573/lectures/573lectures.htm">http://xrsv.mm.cs.sunysb.edu/573/lectures/573lectures.htm</a> |
| 5           | Digital Media Tools  |   |
| 6           | Authoring Systems    |   |
| 7           | Implementation       |   |

### **Examinations:**

None