

**A Course for the ATLAS “Technology, Arts and Media” Certificate Program**

**Designing the Information Society of the Next Millennium**

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Ernesto G. Arias ([ernie@cs.colorado.edu](mailto:ernie@cs.colorado.edu)) and Gerhard Fischer ([gerhard@cs.colorado.edu](mailto:gerhard@cs.colorado.edu))

College of Architecture and Planning (CAP), CU-Denver;  
Department of Computer Science (CS) and Institute of Cognitive Science (ICS), CU-Boulder

**Course Numbers:**

1.	CS	sec. 002	call # 12189	Computer Science Undergraduates
2.	CS	sec. 002	call # 24034	Computer Science Graduates
3.	CRP	sec. 002	call #	Denver Arch./Planning Graduates
4.	ENVD	sec. 002	call #	Boulder Arch. / Planning Undergraduates

**Goals and Content.** This course will explore how new media will impact learning, thinking, designing and collaborating in the information society of the next millennium; and how the media itself will be shaped through use by professionals and citizens. The course aims at creating an understanding, that while the future will be different from the past, at present there is really no consensus as to how technological innovations in information and communications will affect the shape of cultures and society in the future. This course encourages enrollment across disciplines, across college levels, and across campuses.

**Topics/Units.** The course will be based on the "Invention and Practice" aspects of new media. Students will have the opportunity of learning and discussing that *the future is not out there to be discovered, but that it has to be designed and invented* — and that they can and should play a meaningful role in this process. To this end, three major themes are investigated:

- **design** in physical spaces, in informational spaces and the relationship between them;
- creation of **virtual communities** and their integration in real behavior settings; and
- exploration of **fundamental concepts in learning and design** such as distributed cognition, evolution, participation, and sustainability.

These three themes form a basis of understanding to think about the impacts of information technologies on the reconstruction of social meaning in the context of virtual spaces. Collaborative and self-directed activities are offered in the context of real world domains. Active participation by students is required, and participants will have opportunities to work in and utilize some of the most innovative technological environments.

**Readings.** Students will be provided with readings selected from the following sources: N. Postman's "Technology"; P.F. Drucker's "Age of Social Transformation"; E.M. Noam's "Electronics and the Dim Future of the University, Science"; J. S. Brown and P. Duguid's "Universities in the Digital Age"; K. Lynch's "Image of the City," M. Castells' "The Informational City"; J. Jacobs' "Death and Life of Great American Cities"; E.T. Hall's trilogy "Beyond Culture," "The Hidden Dimension" and "The Silent Language"; I. Illich's "De-Schooling Society"; L. Mumford's "The Myth and the Machine"; H. Simon's "Sciences of the Artificial."

**Assignments.** Exploration and use of innovative new media such as SimCity 3000, Agensheets, Visual AgenTalk, Dynasites; exploration of and extensions to simulation games (physical, computational and integrated); improvement of collaborations between course participants by creating “persona” on the web; and support of the course itself by new media, such as discussion forums and community spaces.

**Size and Composition.** The course will explore the construction of communities of learners through *horizontal integration* (i.e., bringing students together with different interests, different background knowledge, and different skills); and *vertical integration* of educational levels (i.e., bringing together undergraduates and graduates emphasizing media-supported, collaborative peer-to-peer learning).

**Format.** The course will be a mixture of *guided discovery learning* and opportunities for students to engage in *self-directed learning*. Active student participation and peer-to-peer learning will be emphasized to support *collaborative learning*. The course will be enriched through extensive media support (e.g., use of electronic white boards, smart classroom features, hands-on learning experiences, etc. that we have been researching in the L3D Lab). The course will include a major collaborative project aimed at putting in practice both the collaborative and self-directed learning basis of the course.

**Prerequisites, Levels, and Types of Skills.** No formal prerequisites are required. *Recommended prerequisites:* willingness to explore new learning settings (horizontal and vertical integration), and interest in the role of new media in our society (use, assessment, and design). We are encouraging creative, critical and self-motivated students to participate who believe in interdisciplinary learning, and who are willing to explore new learning paradigms (e.g., self-directed learning, guided discovery learning, learning by doing, collaborative learning) with the instructors in the context of this course.

### **When and Where.**

**Times:** Mondays and Wednesdays 4:00-5:15 pm

**Locations:** Integrated Teaching and Learning Laboratory (ITLL 1B50) of the College of Engineering, Workshops and demonstrations will also use the L3D Lab (ECCS 128) at the College of Engineering and the SIMLab (ENVD 215) at the College of Architecture and Planning.