CSc 84200 — topics in artificial life — fall 2005

course information

- *instructor:*
  Prof Elizabeth Sklar
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  email: *sklar@sci.brooklyn.cuny.edu*
  office: 1417 Ingersoll (Brooklyn College)
  phone: 781 951 5000 extension 1502
  office hours: Tue 11.00am to 12noon (at Brooklyn College) — GC hours TBA

- *course web page:*
  `http://www.sci.brooklyn.cuny.edu/~sklar/alife/`

- *lectures:*
  Thursdays, 11.45am-1.45pm, in room 3305 (CUNY GC)

- *textbook:*
  Artificial Life: An Overview
  edited by Christopher G. Langton. publisher: MIT Press (1995). ISBN: 0-262-62112-6

- *prerequisites:*
  Advanced understanding of an object-oriented program language (like C++ or Java) and an introductory course in Artificial Intelligence.

- *assessment:*

50	points	=	2 class presentations (25 pts each)
25	points	=	class participation (when you're not presenting)
25	points	=	research project and report
100	points		

topics

This course will cover the basic topics in the field of Artificial Life from an historical, philosophical and (primarily) technical perspective. The course will involve weekly readings, presentations and a term project. For the project, students will create ALife applications, either in simulation or using robots. The main topic areas include:

- overview of artificial life;
- artificial agents: control, interaction and learning;
- evolutionary computation;
- artificial societies: complexity, organization and self-organization;
- modelling from nature; and
- philosophical issues surrounding artificial life.

This course satisfies the Computer Science curricular requirement of a Seminar (1 credit).