Course Description

Physics 682: Computational Methods for Nonlinear Systems
Complex Networks, Gene Regulation, Locomotion and Manipulation,
Pattern Formation, ...  
Fall 2006

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Structure. This course will be run as a computer lab. There will be no
formal lectures: we’ll provide structured assignments, looking over your
shoulders to provide help when you are stuck, and give short presentations
on methods, philosophy, and science when these topics come up.

Grading. We recommend that you take this course pass-fail, unless your
program demands that you take it for a grade to fulfill a requirement. If
you take it for a grade, let us know and we’ll negotiate a scheme to evaluate
your performance. Otherwise, if you attend regularly and keep up with the
basics, we’re delighted. (If you stop coming early in the course, be sure to
drop the course!)

Time commitment. Graduate students have many competing demands
on their time, so we have structured the course to avoid substantial efforts
out of class hours.

Prerequisites. We expect some students to enter with professional pro-
gramming and research backgrounds, and others to come in with no previ-
ous exposure to programming or the topics in this course. In each module,
we hope that everyone will succeed in completing the basic first sections,
and that even the most advanced in the class will find the later sections
challenging. It’s how much you learned beyond what you came in with that
matters most.