

Syllabus
 Advanced Computational Physics, PHY 388
 MW 12:00-1:15pm
 Fall 2016

Instructor:	Dr. Allison Harris Office: Moulton Hall 312C Telephone: 309-438-5246 Email: alharri@ilstu.edu Office Hours: Monday, Wednesday 9-10am Tuesday, Thursday 2-3pm, or by appointment	
Course Description and Objectives:	Application of computational methods to contemporary topics in physics, including nonlinear classical and quantum dynamics or physical problems that involve many degrees of freedom.	
Textbook:	None	
Course Components:		
	Homework/ Projects:	Assigned in class on a regular basis.
	Exams:	There will be a “final” exam for this portion of the course on the last class period in which we meet
	Attendance/ Participation:	Regular and punctual attendance is expected during every class meeting. You will be responsible for material missed in your absence, and lecture notes must be obtained from a classmate.
Grading:	Homework	60%
	Final Exam	40%
Plagiarism and Cheating:	Academic integrity is an important part of this University and this course. Students are expected to be honest in all academic work, and a student’s placement of his or her name on any academic exercise shall be regarded as assurance that the work is the result of the student’s own thought, effort, and study. Students who have questions regarding issues of academic dishonesty should refer to the Code of Student Conduct, B1, which outlines unacceptable behaviors in academic matters. In certain circumstances (such as cheating or plagiarism), I may be required to refer a student to Community Rights and Responsibilities for a	

violation of Illinois State University's Code of Student Conduct.

Students with Disabilities: Any student needing to arrange a reasonable accommodation for a documented disability should contact Student Access and Accommodation Services at 350 Fell Hall, 309-438-5853, StudentAccess.IllinoisState.edu.

Tentative Schedule/Topics: Introduction to parallel computing
Basics of MPI
Integrals in parallel
Matrix multiplication in parallel
Applications of MPI