Algorithmic Complexity

CS601A
Fall 2005
Prof. Rebecca N. Wright

Revised Syllabus
1 October, 2005

Location, etc:

Place:	Peirce, Room 120
Time:	6:15pm–8:45pm Tuesdays
Professor:	Rebecca Wright, `rwright@cs.stevens.edu`
Office hours:	1-3pm Thursdays *by appointment only*, 216 Lieb

Textbooks:

Christos Papadimitriou, *Computational Complexity*, Addison-Wesley.
Michael Garey and David Johnson, *Computers and Intractability*, W. H. Freeman and Company.
(Reading assignments below refer to Padadimitriou except where indicated by G&J.)

Syllabus:

August 30	Introduction, Problems and Algorithms **Reading: ch. 1**	
September 6	Turing Machines **Reading: ch. 2**	
September 13	HOMEWORK 1 DUE Turing Machines, ctd.	
September 20	Computability **Reading: ch. 3**	*Guest lecturer: Mike Engling.*
September 27	Boolean Logic **Reading: ch. 4**	*Guest lecturer: Mike Engling.*
October 4	HOMEWORK 2 DUE Relations between Complexity Classes **Reading: ch. 7**	
October 11	MONDAY SCHEDULE: NO CLASS	
October 18	MIDTERM EXAM	
October 26	Reductions and Completeness **Reading: ch. 8**	

November 1	NP-Completeness **Reading: ch. 9, G&J ch. 1–3**	
November 8	HOMEWORK 3 DUE NP-Completeness, cont'd **G&J ch. 4–5**	*Guest lecturer: Mike Engling.*
November 15	NP-Completeness, cont'd **Reading: G&J ch. 6, browse Appendix**	
November 22	HOMEWORK 4 DUE coNP and Function Problems **Reading: ch. 10**	
November 29	Randomized Computation **Reading: ch. 11**	
December 6	FINAL EXAM	

Grading:

Homework Assignments	40%	(lowest score dropped)
Midterm Exam	25%	
Final Exam	25%	
Class Participation	10%	

Late policy:

Assigments are due at the *start* of class on their due dates. Late assignments will not be accepted. All exceptions must be cleared in advance.