ALGORITHMIC COMPLEXITY

CS601A
Spring 2004
Prof. Rebecca N. Wright

Syllabus
20 January, 2004

Location, etc:

Place:	Lieb, Room 319
Time:	6:15pm–8:45pm Tuesdays
Professor:	Rebecca Wright, `rwright@cs.stevens-tech.edu`
Office hours:	2-4pm 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:

January 20	Introduction, Problems and Algorithms **Reading: ch. 1**
January 27	Turing Machines **Reading: ch. 2**
February 3	HOMEWORK 1 DUE Computability **Reading: ch. 3**
February 10	Boolean Logic **Reading: ch. 4**
February 17	MONDAY SCHEDULE: NO CLASS
February 24	Relations between Complexity Classes **Reading: ch. 7**
March 2	HOMEWORK 2 DUE Reductions and Completeness **Reading: ch. 8**
March 9	MIDTERM EXAM
March 16	SPRING RECESS: NO CLASS

March 23	NP-Completeness **Reading: ch. 9, G&J ch. 1–3**
March 30	NP-Completeness, cont'd **G&J ch. 4–5**
April 6	HOMEWORK 3 DUE NP-Completeness, cont'd **Reading: G&J ch. 6, browse Appendix**
April 13	coNP and Function Problems **Reading: ch. 10**
April 20	Randomized Computation **Reading: ch. 11**
April 27	HOMEWORK 4 DUE Cryptography, Approximability **Reading: ch. 12, 13**
May 4	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.