

**CS 402 COMPILER DESIGN**  
**SYLLABUS**  
**Spring 2008**  
<http://www.cis.uab.edu/cs402>

Instructor: Barrett Bryant, Ph. D. ([bryant@cis.uab.edu](mailto:bryant@cis.uab.edu))

Classroom: CH 145

Time: 9:30-10:45 A.M. Tuesday and Thursday

Office: CH 121 (934-2213)

Office Hours: 1:00-2:00 P.M. Tuesday and Thursday or by appointment

Textbook: *Compilers: Principles, Techniques, and Tools*, 2nd ed., by Alfred V. Aho, Monica S. Lam, Ravi Sethi, and Jeffrey D. Ullman, Addison Wesley Longman, 2007.

Time Table:	<u>Topic</u>	<u>Chapter</u>	<u>Lecture</u>
	<a href="#">Introduction</a>	1-2	3
	<a href="#">Lexical Analysis</a>	3	4
	<a href="#">Syntax Analysis</a>	4	5-10
	<a href="#">Syntax Directed Translation</a>	5	12-14
	<a href="#">Intermediate Code Generation</a>	6	15-18
	<a href="#">Run-Time Environments</a>	7	19, 21-23
	<a href="#">Code Generation</a>	8	24-27
	<a href="#">Topics in Code Optimization</a>	9-12	28-29

Grading:	Exam #1	20%
	Exam #2	20%
	Final Exam	20%
	Project	35%
	Exercises	5%

Grading Policy: There will be two (2) 75-minute examinations, the first exam on Tuesday, February 12, and the second exam on Thursday, March 20. The final exam is on Thursday, May 1, 8:00-10:30 A.M. The schedule of these exams is fixed and cannot be changed to accommodate individual circumstances except for a major illness or family emergency. In such cases, arrangements must be made before the time of the exam to take the exam at a different time. Makeup exams will not be given without such prior approval and only for the emergency cases indicated. There will be a term project to implement a compiler for a small but practical programming language. Finally, there will be a small number of exercises to support and complement the examinations and term project. Assignments will be accepted at most one class meeting late, without penalty. Otherwise, all assignments are due on the date indicated by the beginning of the class period. The exercises are to be done independently. Any single incident of copying or duplication of work will result in the division of credit among the collaborators. A subsequent occurrence of academic dishonesty will result in the grade of F for the course.

Prerequisites: [CS 405 Programming Languages](#) with a C or better