

5 Cell Phones and Laptops

Please turn your off cell phones, pagers, etc. and refrain from using laptops during class.

6 Grading

ITEM	PERCENT OF GRADE
Midterm Exams	36%
Final Exam	34%
Homework Sets	30%
Class Participation	described below

Exams

In order to avoid a large buildup of material that must be mastered for each midterm exam, there will be more than one midterm exam during the semester.

- Your lowest midterm exam will be dropped.
- Unless a student is hospitalized, make-up exams will not be given. If you miss a midterm exam, that is the one you must drop. If there is a date that you would like me to work around in scheduling the midterms exams, please let me know right away (first week of class).
- The University is concerned about possible problems that would be caused by a recurrence of swine flu. Allowing each student to drop a midterm exam addresses this issue, since each student can miss one exam during the semester. However, unless you are seriously ill, you should take the first exam(s) so that you save the option of skipping an exam for a situation in which you are seriously ill.

Homework Sets

Homework sets are intended to give you an opportunity to work with the concepts discussed in class.

- Homework sets are due before class starts on the announced due date, and will be collected at that time. Once the homework has been collected and class begins, any homework sets turned in will be regarded as late.
- There is a grace period during which late homeworks will not be penalized. Students utilizing the grace period must put their late homework in the instructor's mailbox **at least 15 minutes prior** to the end of the grace period or give it directly to the instructor prior to the end of the grace period. The grace period for late homeworks is as follows:

<u>DUE-DATE</u>	<u>END-OF-GRACE-PERIOD</u>
11:15am Monday	11:15am on the following Wednesday
11:15am Wednesday	11:15am on the following Friday
11:15am Friday	11:15am on the following Monday

After the end of the grace period, late homework sets will be penalized 25% of the total points that the assignment is worth, for each day that the assignment is late (not including Saturday and Sunday).

- **All work must be done independently.** You may consult with others about conceptual problems with assignments and for debugging of Prolog programs. However, collaboration beyond this is not permitted; each student must do his or her homework assignments independently.
- In the case of questions regarding the grading of homework assignments, you should first contact the teaching assistant. If you still have questions after meeting with the teaching assistant, contact the instructor.

Class Participation

Class participation is strongly encouraged and leads to a much more enjoyable and productive class. So please actively contribute to the class discussions and feel free to ask questions — I want to help you master logic/reasoning and get as much from the course as possible. Particularly good class contributions will positively affect borderline decisions on final grades in the course. Disruptive or distracting behavior hurts the whole class; such behavior will result in a reduction of up to two letter grades in the student's final grade in the course.

Lectures and Readings: (subject to revision)

Topic	Reading
<u>Logic and Reasoning</u>	
Overview	Ben-Ari 1-7
<u>Mathematical Induction</u> (review)	
<u>Propositional logic</u>	
Syntax	Ben-Ari 12-13
Semantics	Ben-Ari 9-18
Equivalence	Ben-Ari 18-24
Satisfiability, Validity, and Consequence	24-28
Semantic Tableaux	29-33
Soundness and Completeness	33-38
<u>Deductive Systems for Propositional Calculus</u>	
Deductive Proofs	43-44
Natural Deduction	63, handout
<u>Predicate logic</u>	
Syntax	101-104
Semantics, Interpretations, Satisfiability	105-107
<u>Introduction to Logic Programming and Prolog</u>	handout
<u>Predicate Logic (cont.)</u>	
Equivalence	107-109
Semantic Tableaux	109-118
Natural Deduction in Predicate Logic	handout
<u>Resolution for Propositional Logic</u>	
Propositional Logic: Clausal Form	67-71
Propositional Logic: Resolution	71-80
<u>Resolution for Predicate Logic</u>	
Predicate Logic: Clausal Form	139-146
Predicate Logic: Ground Resolution	152-153
Predicate Logic: Unification	153-161
Predicate Logic: General Resolution	164-170
Resolution and Question-Answering	handout