

# Computer Science 2742 – Fall 2009, MUN

## Logic in Computer Science

### Basic course info:

- *Instructor:* Antonina Kolokolova.
- *Email:* kol@cs.mun.ca. *Office:* ER 6033
- *Lectures:* Mon/Wed/Fri 12:00-12:50 in EN 1051
- *Instructor office hours:* TBA.
- *Course prerequisite:* CS 1710

**Course Web Site:** <http://www.cs.mun.ca/~kol/courses/2742-f09>

All announcements will be posted on the website, as well as answers to frequently asked questions, assignments, solutions and so on. Please check it regularly.

**Textbook :** No required textbook (notes will be posted online). **Reference book:** “Discrete Mathematics with Applications”, Susanna S. Epp, 3rd edition, 2004.

### Marking scheme (tentative!):

Assignments:  $5 \times 7\% = 35\%$ , midterm tests:  $2 \times 15\% = 30\%$ , final exam: 35%. Note that the last assignment will be due during the last week of the semester (to provide adequate preparation for the final exam).

### Course Contents (tentative!):

- Propositional logic and Boolean algebra
- Predicate logic and basic set theory
- Methods of reasoning (incl. induction)
- Applications of logic to artificial intelligence, database systems and program correctness.
- Limitations of logic (intractability and Gödel incompleteness theorem).