Computing Science 1720

Formal Systems and Logic in Computing Science
(3 Hours lecture and 1 Hour lab)

Prerequisite : Cs 1140 or equivalent
Co-requisite : Cs 1150

Instructor : Franco Carlacci
Office : C422
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Course Content :

This course is designed to introduce computing science students to formal systems and logic, and to show how these tools are used in computing science and practice. Students will be expected to achieve strong familiarity with ideas and concepts from both propositional and predicate logic: including Truth tables, Truth Trees, TT Short Cut Form as well as the use of Natural Deduction Derivations for both Propositional and Predicate logic (problems of moderate complexity). Other topics to be covered include: theory of sets, functions and relations; combinatorics; graph theory; boolean algebra; Proof techniques; circuit design and minimization; introduction to formal language theory, automata theory and Finite state machines.

Text:

There is no required text for this course, but the following might be helpful for some of what we will cover in this course. Also, I will be placing some relevant texts on reserve in the library

Discrete Mathematics and its Applications (Third Edition)
by: Kenneth H. Rosen

Other supplemental readings as required.

Marking:

Assignments	: 25 %
Quizzes	: 10 %
Midterm 1	: 20 %
Midterm 2	: 20 %
Final	: 25 %

No Late assignments will be accepted !