

JAN. 18 2001

GRANDE PRAIRIE REGIONAL COLLEGE  
DEPARTMENT OF COMPUTING, MATHEMATICS and STATISTICAL  
Sciences

Computing Science 2720

WINTER SEMESTER 2001

Title : Formal Systems and Logic in Computing Science

Schedule :

Lecture	A3	T R	8:30	-	9:50	in	J203
	B3	T R	13:00	-	14:20	in	J204
LAB	L1	M	14:30	-	17:20	in	A301
	L2	W	14:30	-	17:20	in	A301
	L3	F	14:30	-	17:20	in	A301
Seminar	S1	F	8:30	-	9:20	in	J203
	S2	F	10:00	-	10:50	in	J203
	S3	F	11:30	-	12:20	in	J203

Instructor : LakshmaREDDY Ganta  
Office : J220  
Phone : 539 2850

Consultations:

Calendar Description of the Course:

3(3-1s-3) UT. An introduction to the tools of set theory, logic, and induction, and their use in the practice of reasoning about algorithms and programs. Basic set theory. The notion of a function. Counting. Propositional and predicate logic and their proof systems. Inductive definitions and proofs by induction. Program specification and correctness.

Prerequisite: CMUT 1140 or equivalent

This course is designed to introduce computing science students to formal systems and logic. Students will be expected to achieve strong familiarity with ideas and concepts from propositional, predicate logic and Mizar proof system. Other topics to be covered include: theory of sets, functions and relations; induction; program correctness; graph theory; boolean algebra; circuit design and finite state machines.

**Text:** Discrete Mathematics and Its Applications (Fourth Edition) by Kenneth H. Rosen

**Marking:**

Assignments	: 14 %
Term test 1	: 24 %
Term test 2	: 24 %
Final	: 38 %

**Special Notes:**

- 1) When necessary, lab time will be utilised for lecturing on specific topics and mizar proof system.
- 2) No Late assignments will be accepted.