



## DEPARTMENT OF SCIENCE

### COURSE OUTLINE – *CS2720 Formal Systems and Logic in Computing Science* WINTER 2013

**INSTRUCTOR:** Dr. Reddy Ganta                      **PHONE:** 539-2850  
**OFFICE:** J220    **E-MAIL:** RGantal@gprc.ab.ca

**OFFICE HOURS:** T R 1- 2:20

**PREREQUISITE(S)/COREQUISITE:** CS 1140 or equivalent

**REQUIRED TEXTS:** Discrete Mathematics and Its Applications (Seventh Edition) by Kenneth H. Rosen.

**CALENDAR DESCRIPTION:** An introductory course to present 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 system will be studied. Inductive definitions and proofs by induction will be covered along with program specification and correctness.

**CREDIT/CONTACT HOURS:** (3-1-1.5) 3 credits

**DELIVERY MODE(S):** Lecture:     A3   T R     10:00-11:20 J227  
   Lab:     L1   M     15:30-16:50 J101  
   Seminar :     S1   M     14:30-15:20 J227

**TRANSFERABILITY:** See [www.gprc.ab.ca](http://www.gprc.ab.ca) and [www.acat.gov.ab.ca](http://www.acat.gov.ab.ca)

**\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions and may not meet the prerequisite requirements for other math courses. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

**GRADING CRITERIA:**

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A <sup>+</sup>	4.0	95 – 100	EXCELLENT
A	4.0	90 – 94	
A <sup>-</sup>	3.7	85 – 89	FIRST CLASS STANDING
B <sup>+</sup>	3.3	80 – 84	
B	3.0	75 – 79	GOOD
B <sup>-</sup>	2.7	70 – 74	
C <sup>+</sup>	2.3	66 – 69	SATISFACTORY
C	2.0	63 – 65	
C <sup>-</sup>	1.7	60 – 62	
D <sup>+</sup>	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

**EVALUATIONS:** Assignments 16%  
 Quizzes 20%  
 Midterm 26% TBA  
 Final Exam 38% April 18-29 inclusive including Saturdays and evenings

**STUDENT RESPONSIBILITIES:** Students are responsible for all lecture material, labs and readings. Students are expected to practice the material by doing problems from the textbook. Assignments are not accepted if handed in late. If the midterm is missed due to illness the weight will be put on the final (ie. the final will be worth 64%). If the final is missed due to illness it will be deferred (see calendar for information). A doctor's note and a phone message or email will be required in both cases.

**STATEMENT ON PLAGIARISM AND CHEATING:** Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at [www.gprc.ab.ca/about/administration/policies/\\*\\*](http://www.gprc.ab.ca/about/administration/policies/**)

\*\*Note: all Academic and Administrative policies are available on the same page.

COURSE SCHEDULE/TENTATIVE TIMELINE:

Week 1	Chapter 1
Week 2	Chapter 1
Week 3	Chapter 1/2
Week 4	Chapter 2
Week 5	Chapter 2/3
Week 6	Chapter 3/ Midterm
Week 7	Reading week
Week 8	Midterm Review and Chapter 5
Week 9	Chapter 5
Week 10	Chapter 9
Week 11	Chapter 9
Week 12	Chapter 12
Week 13	Chapter 13
Week 14	Review