**CSCI 150 Discrete Structures**

Test out examination

What you should know for the test out examination of CSCI 150:

• Counting: Selections, ordered and non-ordered, with and without replacement

• Binomial coefficients, binomial theorem, Pascal triangle

• Sets, functions, and relations including equivalence and partial order re-lations, and one-to-one   
 correspondences

• General knowledge of proofs

• Inclusion-exclusion and pigeon-hole

• Induction proofs and recurrences

• Divisibility, primes, congruence, modular arithmetic

• Graph theory, vertices, edges, cycles, trees, handshake-lemma, Euler’s formula

Some possible resources (and textbooks):

(on-line references)

http://www.cs.hunter.cuny.edu/~saad/courses/dm/dmbook.pdf

http://zimmer.csufresno.edu/~larryc/proofs/proofs.html

Discrete Mathematics, Aduni.org

Discrete Mathematics Elementary and Beyond by Lovsz et al., Aduni org.

(texts)

Discrete Mathematics and its Applications, by Rosen.

A First Course in Discrete Mathematics, by Anderson.

Discrete Mathematics for Computer Scientists, by Stein at al.

Discrete and combinatorial mathematics: An applied introduction, by Grimaldi R.

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