CISC 2210 – Introduction to Discrete Structures
Syllabus, Prerequisite Courses, and Resources

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Fall 2023, Tuesdays and Thursdays
TR11: 11:00am–12:15pm  TR2: 2:15pm–3:30pm
http://www.sci.brooklyn.cuny.edu/~amotz/discretemath.html

Scope: CISC 2210 is required for the major and introduces important mathematics frequently used in computer science.

Syllabus: Proofs; Sets; Logic; Induction; Recursion; Counting; Combinatorics; Probability; Algorithms; Graphs; Number Theory.

Prerequisite courses:
• Computer and Information Science 1.10, or 1.20, or 1110 [1.5], or 1115, or both of 1113 and 1114, or 1170, or 1180, or 1215.
• Mathematics 1011 [2.9] or 1012 or 2.92 or assignment to Mathematics 3.20, 1201 [3.3], or 4.10 by the Department of Mathematics.

Books:
• A “good fit to this course” text book: “Discrete Mathematics for Computer Science,” by Bogart, and Stein. and Drysdale.
  http://discrete.openmathbooks.org/pdfs/dmoi-tablet.pdf
• A book with Problems and Solutions by Schaum:
• A list of books on “Discrete mathematics for Computer Science” from Google:
  https://www.google.com/search?q=list+of+books+on+discrete+mathematics+for+computer+science&rlz=1C1CHBF_enUS762US762&source=univ&tbm=shop&tbo=u&sa=X&ved=0ahUKEwiEk5HHiKDfAhUIm-AKHWYIAGgQsxgIzAE

Online Resources:
• Text tutorial: “Discrete Mathematics An Open Introduction” by Oscar Levin:
  http://discrete.openmathbooks.org/dmoi2/frontmatter.html
• Text tutorial: “Discrete Mathematics Tutorial” by tutorialspoint:
• Introduction to Higher Mathematics (First 12 of the 19 video lectures):
  https://www.youtube.com/playlist?list=PLZzHxk_TPOStgPtqRZ6KzmkUQBQ8TSWVX
• Tretvutor: Discrete Math 1 and Discrete Math 2 (video lectures and exercise sessions):
  Part 1: https://www.youtube.com/playlist?list=PL3GDACPv17eAy4EagITaAnm-qDxkmB5cXz
  Part 2: https://www.youtube.com/playlist?list=PL3GDACPv17eAy4EagITaAnm-qDxkmB5cXz