## MULTIMEDIA MATERIALS FOR CSCI 150

The Dolciani Math Center (7th Floor Hunter East) has multi-media materials for the following topics usually taught in CSCI 150. Bring your ID card to the Learning Center and ask for the lesson by the call number below. If there is more than one number listed, there are several alternatives for the lesson. You may pick and choose which works best for you. Tutorial DVDs present computations related to concepts.

| TOPIC | Tutorial DVDs | PLATO AVAILABLE UNDER: |
| :---: | :---: | :---: |
| The System of Integers | B1(1.6) |  |
| The System of Rational Numbers | B1(1.7) | Rational Numbers: Concepts and Operations |
| Laws of Exponents | A8, AT3 | Exponents and Order of Operations: Introductory |
| The Binomial Theorem | G9, K6, W3(10.5), A10 | Binomial Theorem |
| Factoring Quadratics | A2, A3, AT1, V6, V7, V9, W1, O2, S3 | Factoring Polynomials |
| Solving Quadratics | A6, A8, X7, X10, S4, V9, AT2 | Quadratic Equations: Solving |
| Rational Expressions | V7, W1(p.7), X7,Y3 | Rational Expressions: Concepts, Operations and Solving |
| Systems of Equations | A4, A5, X7, X8, J20, S4, V4, K5, K6, W2, O2, O3 | Systems of Linear (and Quadratic) Equations |
| Functions | D2, B4-2, W1 1.2-1.7, O1, G1 | Functions: Notation, Domain, Range, and Properties |
| Arithmetic Sequences and Series | J22, W3, V13 G8 |  |
| Geometric Sequences and Series | J23, W3, V13, G8 |  |
| Sequences and Summation Notation | W3(10.1) |  |
| Numbers in Scientific Notation | X5 | Scientific Notation |
| Describing Sets | B3(3.1), D1 | Sets and Venn Diagrams |
| Relations Among Sets; One-to-one Correspondence | B3-2 | Sets and Venn Diagrams |
| Operations on Sets | B3-3 | Sets and Venn Diagrams |
| Prime Numbers | B1, D3 | Factors and Multiples |
| Greatest Common Divisor and Least Common Multiple/Euclidean algorrithm | B1, D3 | Factors and Multiples |
| Matrices | G8, O3, W3 |  |
| Logarithms | A8, J19, AT3, O4, G3 | Functions: Exponential and Logarithmic |
| Counting Principles | G9, L4(6), W3(10.6) | Probability: Introductory |
| The Addition Rule | L4(4) | Probability: Introductory |
| The Multiplication Rule | L4(5) | Probability: Introductory |
| Venn Diagrams | B3-4 | Sets and Venn Diagrams |
| Relations and Operations | B4-1 | Sets and Venn Diagrams |
| Permutations and Combinations | J25, D4, L4(7,9) |  |
| Euler Formula | D5 |  |
| Introduction to Logic; Statements and Truth tables | B2A(2.1a, 2.1b) |  |
| Truth Tables of Compound Statements | B2A(2.2a), B2A(2.2b) |  |
| The Conditional Connective (Implication) | B2A(2.3) |  |
| The Biconditional Connective, Tautologies, SelfContradictions | B2A(2.4) |  |
| Converse, Contrapositive, Logical Equivalence, De Morgan's Laws | B2B(2.5) |  |
| Logical Implication | B2B(2.6) |  |
| Universal and Existential Statements | B2B(2.9) |  |
| The Inclusion-Exclusion Principle | L1 |  |
| Mathematical Induction | G9, J24, K6, W3(10.4) |  |
| Fibonacci | D1, D2 |  |
| Fundamental Theorem of Arithmetic | D3 |  |
| Equivalence Relations | B4A |  |
| Modular Addition (Congruence) and Multiplication | B4B D3 |  |
| Euler Circuits | H2 |  |
| Hamiltonian Circuits | H3 |  |
| Solving Simple Rational Equations | AT-1, V7, X7 |  |
| Working with Complex Fractions | AT-1, V7, X7 |  |

