## **MULTI-MEDIA MATERIALS FOR MATH 160/260**

The Dolciani Math Center (7<sup>th</sup> Floor Hunter East) has multi-media materials for the following topics in MATH 160 and MATH 260. Please note for MATH 260, these materials will not give you practice in the proofs of the topics but will give you an overview of the content. 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.

TOPIC	CDs/DVDs
Solving Systems of Linear Equations	P1
Geometrical Interpretations	P1
Strict Triangular Form	P1
Coefficient Matrices	P1
Augmented Matrices	P1
Elementary Row Operations	P1
Back-substitution	P1
Gaussian Elimination	G-8, K5, P2
Gauss-Jordan Reduction	G-8, K5, P2
Free Variables	G-8, K5, P2
Underdetermined And Overdetermined Systems	P2
Matrix Operations	G-8, K5, P3
Vectors	G-8, K5, P3
Algebraic Rules	G-8, K5, P3
Exponentiation	G-8, K5, P3
The Transpose	G-8, K5, P3
The Identity Matrix	P4
The Inverse	P4
Linear Combinations	P4
Application: Transition Matrices	P4
Row-Equivalence	P5
Elementary Matrix Decomposition	P5
Matrix Inversion	G-8, K6, P5
Inverses And Linear Systems	G-8, K6, P5
The Determinant	G-8, K6, P6
The Adjoint And Cramer's Rule	A8, G-8, P6
Properties And Applications of the Determinant	A8, G-8, P6
Vector Spaces	P7
Subspaces	P7
Span And Spanning Sets	P7
Nullspace	P7
Linear Independence	P8
Basis And Dimension	P9
Scalar Product	P10
Norm	P10
Orthogonality	P10
Equations of Planes	P10
Eigenvalues, Eigenvectors And Eigenspaces	P11
Diagonalizability	P11
Linear Transformations	P12