

REPUBLIC OF TURKEY

ISTANBUL TECHNICAL UNIVERSITY RECTORATE

Faculty of Science and Letters Mathematics

## MAT 261/E Schedule for Distance Learning

(Spring '20)

Week	Topics
April 6-10	<ul> <li>Chapter 3 - Vector Spaces</li> <li>1. The Null Space of a Matrix</li> <li>2. Span and Spanning sets</li> <li>3. Linear Independence</li> <li>4. Basis and Dimension</li> </ul>
April 13-17	<ol> <li>Change of Basis</li> <li>Row Space and Column Space</li> </ol>
April 20-24	<ul> <li>Chapter 4 - Linear Transformation</li> <li>1. Linear Transformations: Definition</li> <li>2. The Image and Kernel</li> <li>3. Matrix Representations of Linear Transformations</li> </ul>
April 27 - May 1	Chapter 6 - Eigenvalues and Eigenvectors 1. Introduction to Eigenvalues
May 4-8	2. Diagonalization of Matrices
May 11-15	Chapter 5 – Orthogonality 1. The Scalar Product in R
May 18-22	<ol> <li>Orthogonal Subspaces</li> <li>Inner Product Spaces</li> </ol>
May 25-29	<ol> <li>4. Orthonormal Sets</li> <li>5. The Gram-Schmidt Orthogonal</li> </ol>
June 1-5	Review