

## Module 5: Linear Algebra III

Section	Topic	Link
1	Definition of vector space and related examples	<a href="https://drive.google.com/file/d/1VuESxepaiZysSBOqRzk52OHQ58gFmOC/view?usp=sharing">https://drive.google.com/file/d/1VuESxepaiZysSBOqRzk52OHQ58gFmOC/view?usp=sharing</a>
2	Definition of subspace and examples	<a href="https://drive.google.com/file/d/1PJfhN3LZF3xZoMVzWdranFVV_LhsneKe/view?usp=sharing">https://drive.google.com/file/d/1PJfhN3LZF3xZoMVzWdranFVV_LhsneKe/view?usp=sharing</a>
3	Linear combinations, Linear span	<a href="https://drive.google.com/file/d/1lr_YMuSektQstpGtbn688BmnntyJEEol/view?usp=sharing">https://drive.google.com/file/d/1lr_YMuSektQstpGtbn688BmnntyJEEol/view?usp=sharing</a>
4	Linearly independent and dependent sets	<a href="https://drive.google.com/file/d/1vAcrnvb_FtLoKMv1-KoaEe_fGkDi9PtN/view?usp=sharing">https://drive.google.com/file/d/1vAcrnvb_FtLoKMv1-KoaEe_fGkDi9PtN/view?usp=sharing</a>
5	Basis and dimension	<a href="https://drive.google.com/file/d/15ooDRBEq8hfG0HeqTRk3h2fWjKF-5QV0/view?usp=sharing">https://drive.google.com/file/d/15ooDRBEq8hfG0HeqTRk3h2fWjKF-5QV0/view?usp=sharing</a>
6	Linear transformation – definition and related examples	<a href="https://drive.google.com/file/d/1RovHznHn44yK2a-DPxkEjeta8R7-N9IM/view?usp=sharing">https://drive.google.com/file/d/1RovHznHn44yK2a-DPxkEjeta8R7-N9IM/view?usp=sharing</a>
7	Matrix of a linear transformation	<a href="https://drive.google.com/file/d/1OsB-ZwfomME9EvBjfNUPhcTjPs6Y-I7U/view?usp=drive_link">https://drive.google.com/file/d/1OsB-ZwfomME9EvBjfNUPhcTjPs6Y-I7U/view?usp=drive_link</a>
8	Rank Nullity theorem and related examples	<a href="https://drive.google.com/file/d/15bYouMI1qAcoD0DWcs55NXZ-5fyjxikw/view?usp=sharing">https://drive.google.com/file/d/15bYouMI1qAcoD0DWcs55NXZ-5fyjxikw/view?usp=sharing</a>
9	Inner product space, orthogonal, and orthonormal sets	<a href="https://drive.google.com/file/d/1alB309QNXY0UIw529sD_Psf6CJ3_ZCuG/view?usp=sharing">https://drive.google.com/file/d/1alB309QNXY0UIw529sD_Psf6CJ3_ZCuG/view?usp=sharing</a>