

Matrix Algebra Preparation

Books

Linear Algebra Done Right, Sheldon Axler:

<https://linear.axler.net/>

A Mathematical Primer for Social Statistics, John Fox:

<https://us.sagepub.com/en-us/nam/a-mathematical-primer-for-social-statistics/book274356>

Simon and Blume, Mathematics for Economists (difficult):

<http://www.repetitfind.ru/Literature/subjects/Blume-Mathematics-for-Economists.pdf>

Broida and Gill, Comprehensive Introduction to Linear Algebra: <https://cseweb.ucsd.edu/~gill/CILASite/>

Moore, Will H. and David A. Siegel. 2013. A Mathematics Course for Political and Social Research.

Princeton, NJ: Princeton University Press. YouTube Lecture Series:

<https://www.youtube.com/channel/UCrA2SLUKnV6yjdglfDwFeGg>

Linear Algebra Step-by-Step:

<https://www.amazon.com/Linear-Algebra-Step-Kuldeep-Singh/dp/0199654441>

No bullshit guide to linear algebra, Ivan Savov:

<https://www.amazon.com/No-bullshit-guide-linear-algebra/dp/0992001021>

Hefferon, Linear Algebra: <https://joshua.smcvt.edu/linearalgebra/>

Math for Deep Learning: What you Need to Know to Understand Neural Networks, Ronald T. Kneusel

<https://www.amazon.com/Math-Deep-Learning-Understand-Networks/dp/1718501900>

Online Courses

CenterStat: Matrix Algebra Review <https://centerstat.org/matrix-review/>

MIT Open Courseware: Linear Algebra <https://ocw.mit.edu/courses/18-06-linear-algebra-spring-2010/>

3Blue1Brown: Linear Algebra <https://www.3blue1brown.com/topics/linear-algebra>

Khan Academy, Linear Algebra: <https://www.khanacademy.org/math/linear-algebra>

Linear Algebra Done Right, Sheldon Axler: <https://linear.axler.net/LADRvideos.html>

Moore, Will H. and David A. Siegel. 2013. A Mathematics Course for Political and Social Research.

Princeton, NJ: Princeton University Press. YouTube Lecture Series:

<https://www.youtube.com/channel/UCrA2SLUKnV6yjdglfDwFeGg>

Immersive Linear Algebra: <http://immersivemath.com/ila/> (good visualizations)

Complete linear algebra (Udemy, Not Free):

<https://www.udemy.com/course/linear-algebra-theory-and-implementation/>

Understanding Linear Algebra, David Austin: <https://davidAustinm.github.io/ula/ula.html>

Linear Algebra – Foundations to Frontiers:

<https://www.edx.org/course/linear-algebra-foundations-to-frontiers>

Chapters/Excerpts

William Revelle's Psychometric Book Appendix E: <https://personality-project.org/r/book/A5.pdf>

Sasha Epskamp's Intro to SEM: <http://sachaepskamp.com/SEM2020>

Rencher & Schaalje, Linear Models in Statistics (Introductory Chapter):

<http://www.utstat.toronto.edu/~brunner/books/LinearModelsInStatistics.pdf>

Kanti, Mardia, Bibby, Multivariate Analysis (Appendix):

<https://statisticalsupportandresearch.files.wordpress.com/2017/06/k-v-mardia-j-t-kent-j-m-bibby-multivariate-analysis-probability-and-mathematical-statistics-academic-press-inc-1979.pdf>

Podcasts

Quantitude The Matrix Episodes: <https://quantitudepod.org/s3e22-thematrix-part1/>

<https://quantitudepod.org/s3e23-the-matrix-part-2/>