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Herbert A Medina* (hmedina@lmu.edu), Department of Mathematics, Loyola Marymount University, 7900 Loyola Blvd., Los Angeles, CA 90045. *Using Mathematica to Illustrate Theorems from Advanced Linear Algebra.*

We will present *Mathematica* notebooks that we have developed and used in an upper division linear algebra course at Loyola Marymount University to lead students through non-trivial examples of the Jordan canonical form and spectral theorems for $n \times n$ matrices. We also will discuss the pedagogical reasons for constructing these notebooks using “basic” *Mathematica* commands like `Det` and `NullSpace` while avoiding “macro” commands like `EigenSystem`, `JordanDecomposition`, etc. (Received July 17, 2000)