TS Module 2 Time series concepts

(The attached PDF file has better formatting.)

- Stochastic processes
- Means, variances, and covariances
- Stationarity

Read Section 2.2.1, "Means, variances, and covariances," on pages 11-12.

Know equations 2.2.1 through 2.2.7 on pages 11 and 12. You know these equations from other work; they are definitions and formulas for variances and covariances.

Read the "Random walk" on pages 12-14. Know equations 2.2.8 through 2.2.13 on pages 12 and 13. Random walks occur in financial and actuarial work. These relations are tested on the final exam.

Read "A moving average" on pages 14-16, and know equations 2.2.14 through 2.2.16. Focus on the derivation of equation 2.2.15 on page 16. You use the same reasoning for most of the time series in this textbook.

Read Section 2.3, "Stationarity," on pages 17-18, and know equations 2.3.1 and 2.3.2. The equations are apply to all stationary series.

Read "White noise" on page 17, and know equation 2.2.3.

Module 2 seems easy, but these are the building blocks of time series analysis. As you work through the modules, verify the derivations of the equations. The final exam problems are easy if you understand the principles. Some problems ask you to back into parameters of a time series. The intuition for the relations in this module are essential.