

## Module 1 Time Series Review

Know what is meant by a series having a trend and/or season and be able to identify if a series has a trend and/or season

Decomposition

STL and Classical

Formula for decomposition (multiplicative and additive)

What does multiplicative seasonality look like compared to additive seasonality

Seasonally adjusted data (for both additive and multiplicative series)

Know all the different Exponential Smoothing models discussed in class and be able to identify which one is being used (either by R output or by an equation given or graph of forecasted values)

Know the different accuracy measures and how to calculate them (disadvantages of each one)

Difference between an accuracy statistic and a goodness-of-fit statistic

Know what a Random Walk is and how to deal with it

Know what a Stationary time series is and how to identify if a series is stationary

Correlation functions (what each one is and what it tells you)

ACF

PACF

White noise (and how to identify and test for it...know the hypotheses)

What an AR, MA and ARMA (or ARIMA) model is

Can write out any one of these models

Know how to make trending data stationary