

Weather 101 Syllabus

MEDIUM RANGE FORECASTING

I. Medium Range Forecast Products

- Various Products
- Product Generation and Release Times

II. Introduction to the Medium Range

- Challenges Facing Medium Range Forecasters
- Forecast Skill
- Tools Used to Increase Skill

III. Medium Range Forecast Models

- European (ECMWF)
- American (GFS)
- Canadian (GGEM)
- Overall Model Skill

IV. El Nino, La Nina, and Flow Patterns

- Introduction
- Effects on the Medium Range

V. Teleconnections

- Introduction to Select Teleconnections Pattern Effects
- Time of Year Teleconnections are Important
- Seasonal Changes

VI. Intra-seasonal Oscillations

- MJO
- Polar/Stratospheric Warming and Cooling Events
- Soil Moisture

VII. Analogs

- Importance
- Drawbacks

VIII. Thresholds

- Differences between Fixed and Categorical Thresholds
- WSI Forecast Skill