

LECTURER IN CHARGE: **DR. A. A. AMORI & DR. O. ERUOLA**

DEPARTMENT OF WATER RESOURCES MANAGEMENT AND AGROMETEOROLOGY

- COURSE: WMA 502: HYDROMETEOROLOGICAL FORECASTING II**
- MODULE I. NATURE AND SCOPE OF HYDROLOGICAL FORECASTINGS**
- *Definitional Comments
 - *Scope
 - *Recent Developments
 - *Types of Hydrological Forecasts
- MODULE II. NATURE OF HYDROLOGICAL FORECAST SERVICES**
- *Objective
 - *Fields
 - *Scope of Services
 - *Operations, Verification and Evaluation
 - *Development of Hydrological Forecasting in Nigeria
- MODULE III. METHODS OF HYDROLOGICAL FORECASTING**
- *Relationship between Hydrometeorological and Hydrological Forecasting
 - *Types of Methods
 - *Procedures
 - *Limitations
 - *Problems
- MODULE IV. ECONOMIC VALUATION PROCEDURES IN HYDROLOGICAL FORECASTING**
- *Reasons for Valuation in Hydrological Forecasting
 - *Nature of Projects in Hydrological Forecasts
 - *Cost-Benefits Analysis
 - *Benefits and Problems of Cost-Benefits Analysis
 - *Ratings of Valuation
- MODULE V. HYDROLOGICAL FORECASTING AND DISASTER MANAGEMENT**
- *Hydrological Forecasting and Place in Disaster Management
 - *Relevance of Hydrological Forecasting Disaster Management
 - *Hydrological Forecasting in the Prevention & Mitigation of Disasters
 - *Problems of Utilising Forecast Reports in Disaster Management
 - *Recent Development in Disaster Management
- MODULE VI. CONSULTANCY SERVICES IN HYDROLOGICAL FORECASTING**
- *Nature of Consultancy services in Hydrological Forecasting
 - *Guidelines to Consultancy work & contract Bidding

- *Principles and Conditions Guiding the Award and Execution of Contracts
In Hydrological Forecasting
- *Profit and Loss Computations
- *Ethics of Contract Execution
- *Preparation of Final Reports on Contract Execution

MODULE VII.

HYDROLOGICAL FORECASTING AND POLICY FORMULATION

- *Role of Hydrological Forecasts in Policy Making (on Water, Natural Disaster etc.)
- *Inputs of Hydrological Forecasting in Policy Formulation and Implementation
- *Problems
- *Solutions

NOTES

Hydrological Forecasting II is an extension of Hydrometeorological Forecasting I. It is entirely concerned with the role of forecasts in the solution to some hydrological problems such as flooding, erosion etc. It seeks to determine the impact of hydrological forecasts on the preservation and conservation of available water resources.

The course addresses ways by which inputs from hydrological forecasts can be used in valuation of certain water projects as it relates to profit estimation, cost recovery measures and how to bid, prepare, execute and report progress on contract jobs in water resources management. The course is also involved with the inputs of hydrological forecasts in the formulation and implementation of policies on water management disaster management and environmental conservation.

Suggested Further Reading:

Ayoade, J.O. (2005) Introduction to Agro-Climatology (2nd Edition) Ibadan: University Press; 223 pps

Seeman, J. et al (1979) Agrometeorology. Berlin: Spider-Verlag

Wang, J.Y. (1972) Agricultural Meteorology (3rd Edition). San Jose: Millen Information Services