# Course Outcome of M.Phil -Physics

#### **RESEARCH METHODOLOGY AND DATA ANALYSIS**

- Understand the Aim and Motivation scientific research
- Analyse the statistical description of data
- Perform procedure for computer oriented numerical methods
- Understand the meaning of probability and correction analyses
- Perform procedure for regression analysis

### **ADVANCED INSTRUMENTATION TECHNIQUE**

- Understand the structural analysis by X-Ray and Spectroscopic techniques
- study the optical and electrical characterization by using SEM,TEM,AFM,Two
  probe, four probe, Hall effect
- study the thermal analyses using TGA, TDA method
- study the compositional Analyses by using AAS,AES, FLAME,ICP- AES
- Study the vacuum techniques by using kinetic theory of gases

#### PROFESSIONAL COMPETENCISES

- Study the basic ideas about computers
- Study the spread sheets and MS access
- Understandly the communication skills in English
- Study the GRE quantitative reasoning
- Analyses verbal reasoning and analytical writing

## **THIN FILM TECHNOLOGY**

- Study the preparation of thin films by different methods
- Study the thickness measurements by various methods
- Study the electrical properties of the thin film
- Study the transport properties of semiconducting film
- Study the optical properties of thin film

## **CRYSTAL GROWTH METHODS AND CHARACTERIZATION TECHNIQUES**

- Analyse the thermodynamics of crystal growth
- Study the method of crystal growth from solution
- Study the method of crystal growth from melt
- Study the other crystal growth techniques
- Perform the analysis and characterization of crystals