

Scientific Method Lecture 1

I. Objectives

At the end of this series of lectures you should be able to:

- A. Define terms.
- B. Discuss the limitations of science.
- C. Describe the basic structure of the scientific method.
- D. Explain what makes a good scientific question.
- E. Define hypothesis, falsifiable, and null hypothesis.
- F. Identify the different types of variables.
- G. Design a scientific experiment.

II. Key Concepts and Terms

Communication	Measurable
Conclusions	Measurement
Control treatment	Null hypothesis
Controllable	Objective
Controlled variable	Observation
Definable	Observational science
Dependent variable	Procedure
Empirical	Question
Experiment	Replication
Experimental science	Sample size
Falsifiable	Science
Hypothesis	Subjective
Independent variable	Theory
Law	Variable
Level of treatment	
Manipulation	