

## **Data Analysis and Probability**

**Goal: The learner will understand and use graphs and data analysis.**

**Objective:**

### **4.03 Identify misuses of statistical and numerical data.**

To achieve this objective, students should:

- Identify biased questions in surveys.
- Distinguish between representative, biased and insufficient sampling methods.
- Compare how different displays of data, including changing scale, highlight or deemphasize different aspects of a distribution of data, including shape (e.g., clusters, peaks, gaps), center and variability.
- Identify inappropriate uses of statistical measures in reporting results. For example recognizing that a mean value may not describe a typical value in a data set when there exists one or outliers (e.g., mean salaries for basketball players).