Learning objectives

After reading this chapter and doing the exercises, you should be able to:

1. Understand the importance of quality control and how statistical methods can assist in the quality control process.
2. Understand acceptance sampling procedures.
3. Know the difference between consumer's risk and producer's risk.
4. Use the binomial probability distribution to develop acceptance sampling plans.
5. Know what is meant by multiple sampling plans.
6. Construct quality control charts and understand how they are used for statistical process control.
7. Know the definition of the following terms:

   producer's risk
   consumer's risk
   acceptance sampling
   acceptable criterion
   operating characteristic curve
   assignable causes
   common causes
   control charts
   upper control limit
   lower control limit