Course Description
This course deals with the problems encountered in the construction of large or multi-storeyed buildings of a complex nature or where specialized types of mechanical systems are called for. Included is a minor study of systems found in hospitals.

Suggested Prerequisites:
- 102 Mechanical Technology I
- 104 Plumbing & Fire Protection Design
- 109 Heating, Ventilation and Air Conditioning Design

Learning Outcomes
The student will be able to demonstrate an understanding of:
1. the components of complex mechanical systems including plumbing, heating, ventilation, air conditioning and fire protection
2. the fundamentals of specialized piping systems
3. the relationship of the various components.

Course Content:
The student will study the following:
1. from the text Mechanical and Electrical Systems for Buildings
   a. Chapter 6 Systems and Equipment for Heating and Cooling
   b. Chapter 10 Water and Waste
   c. Chapter 11 Bathroom Design
   d. Chapter 13 Fire Protection
2. from the text Means Plumbing Estimating
   b. Chapter 2 Plumbing Subsystems and Components.

Required Textbooks and Materials:
1. Mechanical and Electrical Systems for Buildings, by Stein/Reynolds/McGuinness

Testing:
Emphasis in testing will be based on the student’s ability to explain and apply the materials studied.