Introduction to Mechanical Engineering Design

Chapter Outline

1-1	Design 4
1-2	Mechanical Engineering Design 5
1-3	Phases and Interactions of the Design Process 5
1-4	Design Tools and Resources 8
1-5	The Design Engineer's Professional Responsibilities 10
1-6	Standards and Codes 12
1-7	Economics 12
1-8	Safety and Product Liability 15
1-9	Stress and Strength 15
I-10	Uncertainty 16
I-11	Design Factor and Factor of Safety 17
I -12	Reliability 18
I - 13	Dimensions and Tolerances 19
I-14	Units 21
I - 15	Calculations and Significant Figures 22
I-16	Design Topic Interdependencies 23
I-1 <i>7</i>	Power Transmission Case Study Specifications 24