

## Table of Contents

  
UNIVERSIDAD NACIONAL DE ENTRE RÍOS  
FACULTAD DE INGENIERIA  
CENTRO DE MEDIOS  
BIBLIOTECA

### **Part I - Biomaterials Science**

#### **Chapter 1. An Overview**

1.1. Introduction	1
1.2. Market Size	7
1.3. Terms and Definitions	10
1.3.1. Components of Tissues	10
1.3.2. Components of Implants	13
1.3.3. Physical Properties of Polymers Used as Biomaterials	14
1.3.4. Mechanical Properties of Polymeric Biomaterials	19
1.4. Recent Books on Biomaterials	21
References	23

#### **Chapter 2. Organ and Tissue Structure**

2.1. Introduction	25
2.2. Connective-Tissue Components	25
2.2.1. Collagen	27
2.2.2. Elastic Fibers	29
2.2.3. Proteoglycans, Glycosaminoglycans, and Glycoproteins	31
2.3. Classification of Connective Tissue	34
2.3.1. Loose Connective Tissue	39
2.3.2. Dense Connective Tissue	39
2.3.3. Basement Membrane	41
2.4. Geometry of Connective Tissues	41
2.5. Tissues Involved in Locomotion	43
2.5.1. Nerve and Muscle	43
2.5.2. Tendon and Ligament	48
2.5.3. Bone	51
2.5.4. Articular Cartilage	52
2.6. Tissues Involved in Food Processing and Digestion	54
2.6.1. Teeth	56
2.6.2. Gut and Intestine	57
2.7. Respiration	60