

- **Chapter 1 Basic Concepts of Systems Biology** (p. 1)
- **Chapter 2 Understanding through Modeling - A Historical Perspective and Review of Biochemical Systems Theory as a Powerful Tool for Systems Biology** (p. 27)
- **Chapter 3 Thermostatics: A Poster Child of Systems Thinking** (p. 83)
- **Chapter 4 Friesian Epistemology** (p. 93)
- **Chapter 5 Reconsidering the Notion of the Organic** (p. 101)
- **Chapter 6 The Metaphor of "Chaos"** (p. 115)
- **Chapter 7 Biological Complexity: An Engineering Perspective** (p. 139)
- **Chapter 8 The von Neumann's Self-Replicator and a Critique of Its Misconceptions** (p. 179)
- **Chapter 9 The Mathematical Structure of Thermodynamics** (p. 207)
- **Appendix Systems Biology: A Dictionary of Terms** (p. 223)
- **Index** (p. 241)