

BIOCHEMISTRY

Expected entry-level knowledge for TU-Delft MSc Life Science & Technology

The content listed below is taken from 'Lenninger' as an *example*. Similar content may also be found in other text books. You are expected to have an *understanding* of this or similar content when you arrive in Delft; you are not expected to have learned it by heart.

Book: Lenninger Principles of Biochemistry 5th Edition
Authors: D.L. Nelson and M.M. Cox
Publisher: (2008) W.H. Freeman and Company ISBN 9781429208925

- Chapter 3 Amino Acids, Peptides, and Proteins
- 3.1 Amino Acids
 - 3.2 Peptides and Proteins
 - 3.3 Working with Proteins
 - 3.4 The Structure of Proteins: Primary Structure
- Chapter 4 The Three-Dimensional Structure of Proteins
- 4.1 Overview of Protein Structure
 - 4.2 Protein Secondary Structure
 - 4.3 Protein Tertiary Structure
- Chapter 6 Enzymes
- 6.1 An Introduction to Enzymes
 - 6.2 How Enzymes Work (*Michaelis-Menten Kinetics & Inhibition*)
 - 6.3 Enzyme Kinetics as an Approach to Understanding Mechanism
(*also: Allosteric Enzymes*)
- Chapter 8 Nucleotides and Nucleic Acids
- 8.1 Some Basics
 - 8.2 Nucleic Acid Structure
- Chapter 13 Bioenergetics and Biochemical Reaction Types
- 13.1 Bioenergetics and Thermodynamics
 - 13.4 Biological Oxidation-Reduction Reactions
- Chapter 14 Glycolysis, Gluconeogenesis, and the Pentose Phosphate Pathway
- 14.1 Glycolysis
- Chapter 16 The Citric Acid Cycle
- 16.2 Reactions of the Citric Acid Cycle