

- 1 **Essentials of Molecular Biology**
Chapter 7
- 2 **7.1 Genetic Information**
 - Gene
 - DNA
 - Purine
 - Adenine
 - Guanine
 - Pyrimidines
 - Thymine
 - Cytosine
- 3
 - Central dogma of molecular biology
 -
 - Replication
 - Transcription
 - Translation
- 4
 - Prokaryotic & eukaryotic
- 5 **7.2 DNA Structure**
 - Complementary
 - Antiparallel
 - Double helix
- 6
 - Temperatures effect
- 7
 - Supercoiling
 - Prokaryotes
 - Topoisomerases (DNA gyrase)
 - Eukaryotes
- 8 **7.4 Chromosome**
- 9 **7.5 DNA Replication**
 - semiconservative
- 10
 - DNA polymerases
 - 5' to 3' direction
 - Primase
- 11 **7.6 Replication Fork**
 - Origin of replication
 - Replication fork
 - Leading strand
 - Lagging strand
- 12
 - Bidirectional
 - Theta structure
- 13
 - Proofreading
- 14 **Manipulating DNA**
 - 7.7 Restriction enzymes
- 15

- 16 • Electrophoresis
- 17 • Hybridization
 - probes
- 18 • DNA Sequencing
- 19 • Polymerase chain Reaction (PCR)
- 19 **7.10 Transcription**
 - RNA synthesis
 - Messenger RNA
 - Transfer RNA
 - Ribosomal RNA
- 20 • mRNA
- 21 **7.14 Genetic Code**
 - Codons
 - Anticodon
 - Degenerate
 - Wobble
- 22
- 23
- 24 • Reading frame
- 24 • Protein synthesis