Bioinformatics Lab.

CHAPTER I TERMS 1
DNA (deoxyribonucleic acid)
RNA (ribo-)
Adenine, Cytosine, Guanine, Thymine
Gene
Genome
Phosphodiester bond
5' 3'
Upstream, Downstream
Template
Complement sequence
Antiparallel
Purine, Pyrimidine
Transition, Transversion
Central dogma
Transcription
Translation
Polymerase
Ribosome
Promotor
Positive regulation
Negative regulation
Gene code
Triple code
Codon
Start codon: AUG
Stop codon: UAA, UGA, UAG
Reading frame
Degeneracy
Amino acid structure
Polar vs. Nonpolar
Positively charged vs. Negatively charged
Open reading frame (ORF)
Intron and Exon

Splicing
GT-AG rule
Alternative splicing
Backbone and side chain
Amino group and Carboxylic acid group
Amino terminus and Carboxy terminus
Restriction enzyme
EcoRI, Hind III
Blunt end
Cohensive/sticky end
Gel electrophoresis (garose, acrylamide)
Blotting
Hybridization
Microarray
Cloning
vector
cDNA
cDNA library
gDNA library
BAC library
PCR
Sequencing
Maxam-Gilbert method
Sanger method=Chain-termination method

Extra
NGS
Pyrosequencing
454 technology GS-FLX
Sorexa/Illumina HiSeq2000