



Al-Karkh University for Science
College of Science
Microbiology Department



MOLECULAR BIOLOGY

THEORETICAL

Prepared by

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Ph.D Antibiotic/Molecular Biology

For

2nd Level Students

©2018-2019

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَقَالَ
رَبِّ زِدْنِي عِلْمًا

صِدْقَ اللَّهِ الْعَظِيمِ

Syllabus Content

Lec. No.	Subject
1	Introduction and Brief historical review
2	DNA is the Genetic Material
3	Macromoleculaes: Basic structure and Roles
4	Chemical and physical properties of DNA: The hyperchromic effect
5	Eukaryotic and Prokaryotic DNA type
6	DNA replication
7	Polymerase Chain Reaction PCR
	Mid Exam
8	Post replication event
9	Ribonucleic acid (RNA): structure and function
10	Transcription
11	Post or Co Transcriptional Modification
12	Translation: protein synthesis
13	Epigenetics
	Final Exam