

BIOLOGY 101 – Syllabus modifications:

Chapter 16 (Nucleic acids and Inheritance)

Students need to learn the structure (including the principle of complimentary base pairing) and replication of DNA

- Start studying on page 367 Chargaff's rule and building a structural model of DNA ---- end of page 377, evolutionary significance of altered DNA, replicating the ends, and 16.3 will not be included

The following experiments will not be included:

- Exp. by Griffith, page 365 (Fig. 16.2)
- Exp. by Hershey & Chase, page 366 (Fig. 16.4)
- the students need to know that it was done to prove that DNA is the genetic material, sulfur is part of protein structure, phosphorus is part of the DNA structure
- Exp. by Meselson & Sthal, page 372 (Fig. 16.12) the students need to know that DNA replication follows the semiconservative model but not the details of the experiment that proved it.

Chapter 17 (Expression of genes)

Students need to learn the concept and details of gene expression, Transcription and Translation

Start studying on page 387 (basic principles) - end of page 406 (excluding the evolution sections on page 391 and page 396)

- Section 17.1, include only "The basic principle of Transcription and Translation" pages 388 to 391

Neurospora experiment and figs 17.2 and 17.3 are not included

evolution of the Genetic Code is not included

- Section 17.2 is included, (functional and evolutionary importance of introns is not included).
- Section 17.3 is included
- Section 17.4 is included
- Section 17.5 is included (mutations)