

Biochemistry Of Macromolecules (BCH417)

Nucleic acids

Educational Goals

At the end of the meeting this week, the student should be able to:

1. Describe the makeup of nucleosides, nucleotides, oligonucleotides, and polynucleotides.
2. Describe the primary structure of DNA and RNA and secondary and tertiary structure of DNA.
3. Explain how replication takes place and describe the roles of DNA polymerase in this process.

4. Explain how transcription takes place and describe the role of RNA polymerase in this process.
5. Name the three types of RNA and identify the role of each in translation.
6. Explain how *E. coli* control the expression of genes.
7. Give an example of recombinant DNA and how it is used to help humans.
8. Explain the term mutation and genetic disease.

Further Reading

There is an online material (Please copy and paste in your web browser)

http://www.saddleback.edu/faculty/jzoval/mypptlectures/ch14_nucleic_acids/lecture14_nucleic_acids_web_current.pdf