

**Department:** Mathematics and Computer Sciences

**Division:** Computer Sciences

**Level and Major:** Undergraduate

**Course Title:** Cellular and Molecular Biology

**Number of Credits:** 2

**Prerequisite:** -

**Lecturer:**

**Course Description:**

**Course Goals and Objectives:**

**Course Topics:**

- Types of cell
- Eukaryotic
- Prokaryotic
- Macromolecules (sequence and structures)
- DNA
- RNA
- Protein
- Central dogma
- Transcription
- Translation
- Replication
- Cell division
- Meiosis
- Mitosis
- The genome and how to sequence its relationship to graph concepts in computer science
- Relation between biology and computer
- Investigation of genetic diseases

**Reading Resources:**

- Alberts, B., Johnson, A., Lewis, J., Morgan, D., Raff, M., & Keith Roberts, P. W. (2018). Molecular biology of the cell.

**Evaluation:**